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THE MENNONITES by LARRY TOWELL
The migration from Ontario to Mexico

CREATING AN ICON
Milwaukee and Calatrava

THE ART OF VISION
Independent directors discuss cinematography

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Plans for colonizing the Red Planet

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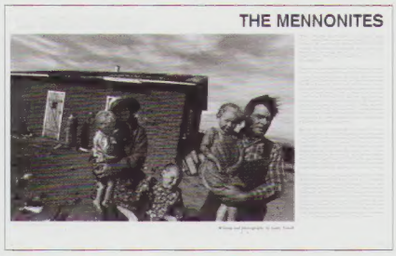

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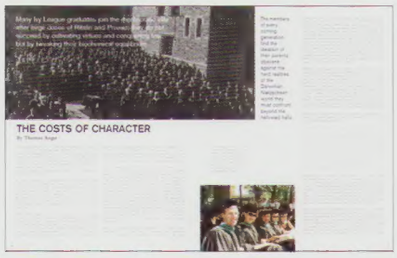
The Mennonites

By Larry Towell

In text and photographs excerpted from his recent book, photojournalist Larry Towell documents the soul-testing hardships faced by a band of Mennonite migrant workers as they journey between Canada and Mexico.



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A series of gritty yet gorgeous images by painter and photographer Marilyn Minter.

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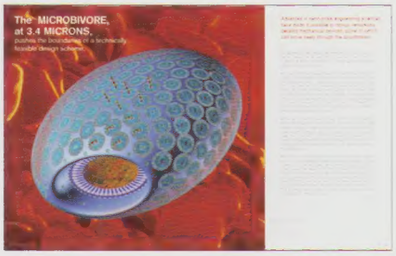
Combining his love of the aural and the visual, musician John Wolfington presents a series of images that inspired the original music he composed for the ISSUE+ CD.



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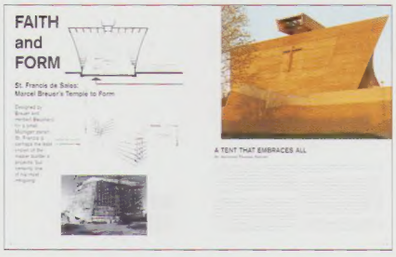
An animated model reveals the wonders of a revolutionary device capable of destroying microbiological pathogens in the bloodstream.



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Mitch Epstein captures Americans at leisure during the 1970s and '80s.

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Bill Owens: New and Improved

Best known for his epochal photo essay *Suburbia*, photographer and brewmaster Bill Owens has recently turned to digital photography, a medium he used to create a limited-edition calendar for ISSUE.

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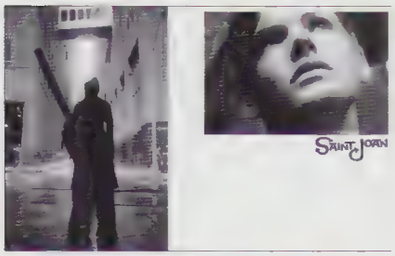

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Moving to Mars?

Mars Direct **by Robert M. Zubrin and David A. Baker**

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by Spandau Parks and Paul McCarthy

Artist Paul McCarthy teams up with his friend and colleague Spandau Parks to produce a series of collaborative collages and drawings.

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Creative Director
Jan-Willem Dikkers
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FEATURE EDITORS
Architecture Joshua Long
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Film Kristin M. Jones
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ISSUE 6 CONTRIBUTORS
General Eléonore Hendricks, Peter King, Anjuli Raza Kolb, John Salinger
Architecture John Arbuckle, Bill Wrase
Fashion Sarah Noone, Squid at Elite Courier Service
Film Larry Clark, Krzysztof Wawrzyniak
Science Timothy Sipp

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The World From My Front Porch. Forthcoming
The Mennonites. New York: Phaidon Press, 2000
Then Palestine. New York: Aperture Foundation, 1999
El Salvador. New York: W. W. Norton & Company, 1997
The Prison Poems of Ho Chi Minh. Dunvegan, ON: Cormorant Books, 1992
House on Ninth Street. Dunvegan, ON: Cormorant Books, 1990
Somoza's Last Stand. Trenton: Red Sea Press, 1990
Gifts of War. Toronto: Coach House Press, 1988

Portrait of the artist as a young man
in 1975 on the Sydenham River, Ontario.
Photo by Linda Towell.

LARRY TOWELL

Watching the world from his front porch.

Larry Towell is a reluctant traveler, which you might say is vital for a world-renowned photojournalist. But as Towell sees it, the world surrounding your own comfortable environment offers a rich and rewarding opportunity for exploration. While Towell studied visual arts at York University in Toronto he brought his camera home, because there was no place on earth he wanted to photograph more.

When he does travel, he immerses himself in the culture and location he has chosen to document. The results are some of the most rich and diverse photographs and journals of the 20th century. Everywhere he travels he concentrates on intimacy and a complete understanding of the physical and cultural landscape. In 1996 he completed a project based on ten years of reportage in El Salvador.

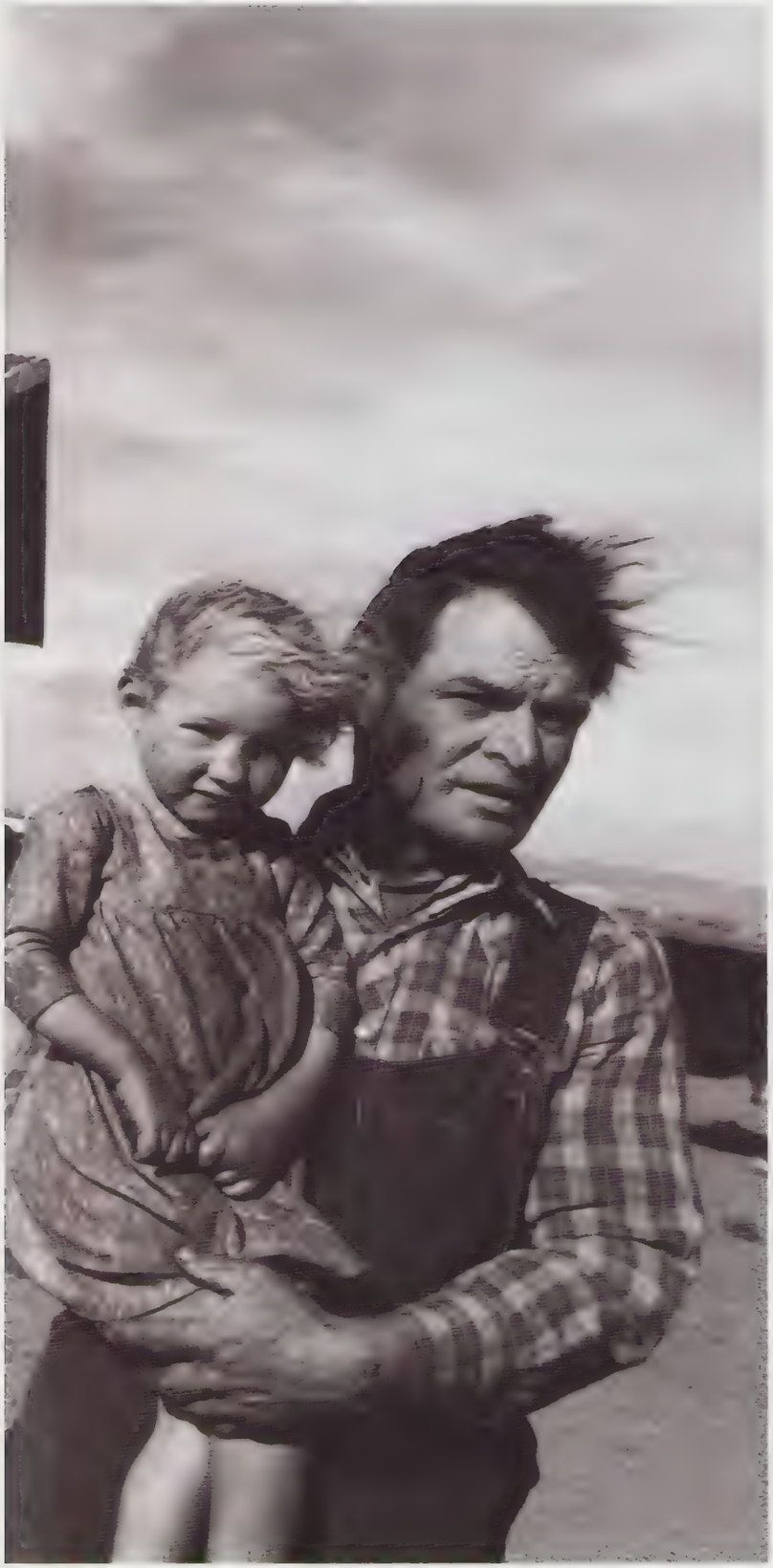
During a stint of volunteer work in Calcutta in 1976, he began photographing and writing, questioning the distribution of wealth, and issues of land and landlessness. When he returned, he supported himself and his family by teaching folk music for several years. In 1984, he also became a freelance photographer and writer, focusing on the dispossessed, exile, and peasant rebellion, completing projects on the Nicaraguan contra war, the relatives of the "Disappeared" of Guatemala, and U.S. Vietnam veterans who had returned to help rebuild war-damaged Vietnam.

His first published magazine essay, *Paradise Lost*, was about the ecological consequences of the Exxon Valdez catastrophe in Prince William Sound, Alaska. Experience as a poet in the 1970s, and as a folk musician in the 1980s did much to shape his style. He became an associate member of Magnum in 1988 and a full member in 1993.

The earth is red and it makes the sky red and the sun makes the sand and the roads and the fields red with its dust. Sometimes it rises in tornados like a cobra. Its head balanced in air, sways back and forth over the fields that lie empty as cobwebs. The snake looks down on the people and their dirty little animals of hunger and fear. A southwest wind has been moving earth at 100 m.p.h. Like an aeroplane propeller when the engine starts, it can sandblast your eyeglasses and take away your breath.

El Cuervo (Casas Grandes Colonies), Chihuahua, Mexico. 1992

THE MENNONITES



When a Mennonite loses his land, a bit of his human dignity has been forfeited. He becomes a migrant worker, an exile who will spend the rest of his life drifting among fruit trees and vegetable vines dreaming of owning his own farm some day. But for those that struggle for God at the end of a hoe, the refuge of land, church, and community may be at least a generation away.

Mennonites are nonconformists and have traditionally separated themselves from the world by living in settlements and colonies set apart from society at large. The Dutch Mennonites had initially fled to Northern Germany and from there to Poland and West Prussia. In 1874, land collectivization, forced government service, and violent upheaval pushed the first of 18,000 to North America: 7,000 to Manitoba, Canada, and 11,000 to the United States. Less than fifty years later, those who opted for Canada were faced with the provincial government's attempt to force integration through the public school system. In 1922, ten percent of the Canadian population headed for Mexico, others to Paraguay. Over the next 70 years, they would spawn colonies throughout Mexico from northern Chihuahua to the Guatemalan border.

Since the 1920s, the encroaching Mexican desert has devastated water tables while the recent liberalization of the international trade barriers has driven commodity prices through the trading floor. In the 1990s, the economy collapsed. In a social environment exacerbated by an unwillingness to adapt theologically, and a population that doubles every 18 years, over 30 percent of the Mennonites in Mexico are now landless. As the rich-poor gap widens, either the poor become destitute or they are forced to violate basic principles of the church. Both options nurture bitterness, alienation, and an inner scattering.

The first Mennonites began returning to Canada in the 1950s dressed the way they had left in the 1920s. It was a small trickle at first, but within three decades the floodgate was wide open and pouring. In 1989, I discovered them in my own backyard, land-hungry and dirt poor. They came looking for work in the vegetable fields and fruit orchards in southern Ontario. I liked them a lot because they seemed both otherworldly and completely vulnerable in a society in which they did not belong and for which they were not prepared. Because I liked them, they liked me and although photography was forbidden, they let me photograph them. That's all there was to it.

Writing and photography by Larry Towell

Migration: Canada to Mexico by Larry Towell

I first met Peter Peters in Ontario in 1991 where he and six of his fourteen children were harvesting tomatoes. He was a friend of David Redekkop's and Jacob Wieler's and was living with his family in an uninsulated farmhouse that had no toilet. The plaster was dropping from the ceiling and the walls were a collage of torn wallpaper. We loaded family effects into vehicles and headed for Mexico through the frost.

From notes written in a van, 2 – 6 November, 1994:

I

Snapshot of America:

There is on this highway a white Ford truck and a red Chevrolet van so consumed by rust that they are both unsafe, perhaps hazardous. The engines burn considerable oil, leak oil and chronically break down. Salvaged engine parts are piled in back of the pick-up to keep the vehicles running. Peter and the boys learn the art of mechanics as they go. This is a migrant family in transit.

The two pet dogs they dumped on a country road a hundred miles back have become homeless strays. Like refugees they must learn to cope with the violence of the natural world. Peter Peters has no problem dropping off dogs. He has been an exile most of his life.

Peter has a large protruding jaw that supports a wobbly bottom lip and a very perfect row of teeth. His eyes water frequently and he wipes them with a large hankie as though wiping something out of them, or into them. He has buried two wives to date and has married a third, Maria, who is mentally challenged. His second wife died during childbirth. The first, say his enemies, expired from overwork and abuse. His neighbours gossip and snicker at him. He's never gotten on with folks. His eyes water again and he wipes them, this time with the same rag with which he last checked the oil. He then smears the oil around his face with the hankie.

Peter is a constant mover and has lived throughout Mexico, Belize, and Canada. He is now heading to Tamaulipas to try it again. Six of his fourteen children have married, moved on, were given away or prematurely died: Helena, aged thirty-five, lives in Bolivia; Elizabeth, thirty-three, in El Cuervo, Mexico; Jacob, twenty-nine, in Canada; Margarita, twenty-eight, in Durango, Mexico. Henry died at age four and is buried behind a Mennonite school somewhere. Abraham, nine, was given to a barren cousin because his mother died a few hours after his birth and Peter couldn't take care of him. "I had all these kids and I didn't know what to do."

Now for the passengers of the vehicles: Peter Jr., twenty-two, I shall call Pancho to avoid confusion with his father; David, sixteen; another Henry, fifteen; John, fourteen; the twins Willie and Trudy, twelve; Susie, eleven; and Benjamin, four; plus Maria. And then there is Peter himself.

The future is foggy as a shaving mirror in steam but everyone is in good spirits. While asking the children's ages, Trudy informs me that today is her birthday. I give her a dollar.

"What's this for? What did I do?"

In her light cotton dress there is a twelve-inch split; the seam had come undone and her undershirt protrudes beyond the sleeves. God is in her heart. You can see Him there shining. Gentle fingers caress her forehead as the wind ruffles her hair like a fist of fire.

For the past five years, the girls have tried a little bit of school in Canada. Trudy is in grade seven. She cannot write, but she says she can read a little better than Susie. Susie is in grade six, she cannot write either, however, she can "read a little bit." Peter claims he is not anti-education. He simply needs their help in the fields, meaning they seldom get to school, and when they do, it's too late to catch up. They become no one's friend and everyone's scapegoat. Willie says he hates school and shows me the pay he received for working all year with his father: a ten-dollar watch. The other boys, who are teenagers, were paid $5 a week. Everyone pitched in to feed each other, to buy what was necessary to buy, to achieve clarity as a unit. This is a surefire cure for adolescent self-doubt within a family.

They have managed to save $2,000 from this year's field labour in order to make it through the year in Mexico. The immigration agent at the U.S. border doesn't seem to believe that they can cross America on that, let alone live out the next several months. America is that way. It's a tough place to enter. Maria cannot speak English so Peter translates and smiles pitifully back at the official whenever he thinks it appropriate, which is often. Everyone empties their pockets including the children and Peter. Maria dumps her purse onto the counter. The woman then makes Maria identify each scrap of paper, as though the papers meant something clandestine, and she refuses to acknowledge me at all until I stick my head into the office.

"Can I help you?"

"It's been an hour. You can let us go."

And she reminds me that she can keep us just as long as she pleases. "These people are about as low as trash," comes out of her head. I can see the words growing on the

Girls attend school through the sixth grade, boys through the seventh. Children sit in a single Mennonite classroom and learn Bible and hymnal as their main textbooks to promote. As their sacred books are written in High German, an antiquated language they can neither speak nor understand, and their oral vernacular is Low German, which is unwritten, most graduate virtually illiterate.

Durango Colony,
Durango, Mexico,
1998

Wind passes slowly overhead like the ghostly voices of the angels of death. Then, like bombers in a squadron that had circled a village and left it undisturbed, the wind is gone like a prayer by five o'clock. The men put their babies down and butt their cigarettes, dig the earth from their ears and eyes and stumble into the barnyard like the deaf.

El Cuervo
(Casas Grandes Colonies).
Chihuahua. Mexico.
1992

wall like vines. The stray dogs are probably hungry by now. At least they have each other. She grudgingly releases us into headlights and horns.

3 a.m. We pull into a parking lot off I-75 to sleep. Peter is under the hood trying to figure it out. The battery cable is loose on its terminal in spite of the fact it's been wedged with soda pop tab and a screw. For some reason the headlights have also been flickering. The eleven of us have eaten nothing but a few potato chips. Peter is too poor to feed the children regular meals; besides, they don't complain. "We'll worry about breakfast tomorrow," he says.

Pancho slumps over the steering wheel like a drunk while I curl beside him, fetus-like on the front seat. The vehicle is full of shadows that walk in an empty courtyard of sleep. Like birds among cedars, they eventually stop stirring. There is a moon above the asphalt. We sleep exposed to the customers of Starvin' Marvin's 24-hour convenience store surrounded by fluorescent lights humming.

I move an ankle in the dawn, then a knee, and my whole body is a rack of pain. Peter is spraying lilac bathroom deodorant over his children to wake them up and make them smell better, the perfume of the poor. We spill onto the parking lot like a huddle of chickens from under a lilac bush. We're famished. Here comes god with one gallon of milk and a single loaf of white bread which we roll into balls and chew as far from probing eyes as we can get.

II

The Ford is losing power so Peter flashes his lights and pulls over for the sixth time today. Salvaged parts are pushed around until he finds a voltage regulator in case that's the problem. The three older boys screw the gasoline jet of the carburetor in and out, experimenting with the sound of the engine racing. Fuel is dripping from the tank and John crawls below to twist a screw into the pinhole of rust. Hand soap is a proven cure for gas-tank leaks but we don't have any. Maria has not said a word in two days. Not a single word.

Born in La Batea, she grew up among siblings with a milk bucket and laundry soap in her hands. She married late and, against her family's will, accepted Peter's pragmatic proposal. He needed a wife desperately, as he did not want to give more of his children away. It is hard to get to know Maria. After five years in Canada, she still speaks not a word of English. After a lifetime in Mexico, no Spanish. She stares out the window of the van all day. Her face is a white wall.

III

The Missouri cotton along Highway 55 has been harvested. A John Deere combine sits among snowballs. The Cotton Inn Bill billboard advertises rooms for $19 night. A sign reads: "Kids Eat For Free at Holiday Inn," but no mention of the price of a bed. On the edge of the field, twisted steel frames of trucks lie belly-up like giant skeletons of insects killed by cotton spray. A black dog barks toward the highway from his master's porch of beer cases. Arkansas 55, then Jericho: an arrow points to the ramp of a city. Another billboard: "Where you are now is the time for Jesus." And: "Cold beer and fuel." "You are now approaching Little Rock, Arkansas." A white Cadillac of sunburned faces slowly overtakes the van as we all stare out the driver's window at four pairs of mirrored sunglasses. "Were You There When They Crucified My Lord?" comes on the radio.

"I'm having a Big Mac attack," says John.

We pull over to eat.

Peter is feeding his entire family on twelve tacos and no drinks for $7.20. There is silent prayer. Under the Taco Bell canopy, a man is taking shelter from the rain. It's getting dark. The world composes itself around the man as sparkles of rain throw headlight bouquets against the windshield.

IV

Mile 192, Arkansas: "Nick's Bar B Q Catfish Exit 183." The houses grow poorer. A Massey Harris tractor covered in rust accepts the weight it has put on among the oats that have now replaced cotton. A transport slams on its brakes, forcing us into a dangerous swerve. The driver is teaching us lessons for cutting him off. My temper explodes soundless. Trudy's red balloon bounces into the front seat. No one says a word as we proceed down the highway step by step. A flower of blood blossoms in a Kleenex she holds in her hand. All of our shirts are grubby from sleeping fully dressed. Pancho's is filthiest from crawling under cars. We pull over at a Rest-stop Picnic Area Exit 97 to use the toilet, then cross the Arkansas River that spreads itself out like a snake on a quilt.

All the wobbling of battery cables and jamming of nails around the post won't restart the van. John and Henry are trying to jump the solenoid. It sparks, but the starter won't groan. The voltage regulator has already been changed and the entire motor is dripping with oil. Must be the starter.

David removes it and finds another diminishing pile of dead appendages. He attempts to construct one working starter from the two by cracking one open. Pulling off the back and removing the armature shaft and bendix gear. Then he dismantles the second. The shafts are of different lengths, might as well give up for the night. His clothes have disintegrated with the rain.

The boys return to the picnic table with twelve remaining slices of bread, a few cans of pop, and a jar of mayonnaise. Peter asks me to check out the pavilion for food. There is a candy bar machine, a dollar a bar. He turns up his nose, laughs, then wolfs down two slices of bread thickly covered in white fluffy mayonnaise. There are ten

slices left between nine people, enough to stave off hunger until morning. Although they haven't eaten since breakfast, the girls have decided they have no appetite for supper. Maria is leaning against the pavilion with her hands across her back. Peter suggests she have some mayonnaise and bread. The girls scurry off like puppies to play in water puddles while the rest of us dash to the vehicle to struggle with sleep.

Inside, Peter suggests Maria drink some milk. She doesn't want to. When she's said "no" her voice was so rare. He asks again. When she tips the gallon container toward the van roof, the liquid slides down her chin and hangs like a pearl. We fall asleep in a thunderstorm, the rain beating the windows and the roof like the tears shed for the world. The girls wade through the dark parking lot, a flashlight leading them away like a mother by the hand.

V

In the morning we buy three pound of bologna, a loaf of bread and a new starter. Peter charges out of the grocery store like a bull from the cost. If any of the consecrated bread and wine remain, the priest and other communicants shall reverently eat and drink the same.

This morning's *USA Today* reads: "Mom Killed Kids."

Christ have Mercy.

The van is spraying oil over the trailer in tow, marking our route on the highway.

"We won't need a map to find our way back," says John into the rearview.

2 p.m. Pancho pulls the truck over for the third time this afternoon to reset the timing. Then he removes the air filter, bent out of shape and clogged with dirt, and throws it into the ditch. "Maybe the carburetor's not getting enough air," he says.

Back on the freeway, I ask John where we are.

"Texas, I think… Hey! My cousin had a pick-up like that." He points to a late model Chevy crossing the lane. No truck, no trailer passes without comment. Double axle. Single. Does it have a winch? Load capacity: 3,200 pounds per. They estimate the amount of small farm machinery each can carry. Double axle: two McCormick "H"s. Year of production: 1941. "An 'H' starts on three cranks. Always starts right up… We once paid two hundred dollars for one and fifteen hundred for another, towed 'em to Mexico and made seven hundred dollars."

Although the fuel needle bounces between Full and Empty, Pancho knows by instinct when we're low. We have scoured the land for gas at $1.09 a gallon and only once paid more.

Tin curls off the roofs of utility trailers like potato chips in Texas heat. Barns collapse in dead grass, women with their skirts held up. Stationwagons on blocks line the front yards where porches sink under the weight of rocking chairs. A high-voltage tower sign reads: "Dallas 31 miles." Another: "Don't mess with Texas." Pancho tries to read a hand-drawn map that has, thus far, guided us. A Budweiser sign with Chilly liquor and solar-powered gate opener advertises $1.09 gas. A Confederate flag hangs horizontal from a porch in a row of grey houses. Heavy equipment slumbers on the empty lanes, monsters with their heads hung in red dust.

The sermon this morning was about one wide and one narrow road that exists both in the colony and outside of it. The minister felt the young people were on the wide road and that the cares of this world had choked out God's kingdom, the hope of the resurrection, their inheritance.

Lambton County, Ontario, Canada, 1993

It has not rained in three years, and so to break the fever, several families uproot for Bolivia where the land is cheap as dirt and where there is rain. Where the rain falls on a better life. The sand keeps moving and so does the geography of life and language and dissatisfaction.

Swift Current Colony (Cuauhtemoc Colonies), Chihuahua, Mexico, 1997

Willie points to a dead animal that tried to outrun a car. Rubber tyre treads scatter like alligator hides along the highway. We enter the causeway toward Dallas under the American Pawn Superstore billboard across from the Bank of America and a marine yacht club. They go crazy. Gas at $1.09. "Hail damage call 911 DENT." "Restoration Worship Center Jesus west of Zion Road, 14 miles east of Dallas." A red heart in the shape of a rubber glove is squeezed by a human hand on a billboard: "The Medical Center Mesquite." "Nationwide mobile homes for sale." "Se Habla Español." "Airduct cleaning." Flags and helium balloons above a Toyota dealership compete for wind in the dead air. The boys pay no attention to the new cars because you can't haul anything in them. The Skyline of Dallas, 44B to Waco comes into view. In a phone booth, two lovers kiss in a bubble of light.

VI

No one has changed clothing, bathed, eaten adequately, brushed their teeth or slept with any measure of comfort for four days. We are continuously hungry and discuss tearing a fried chicken apart with our bare hands. Billboards continue to crowd each other off the highway as though running a race to Mexico: "Motel Couple $19 Next Exit; Christ For The Nations Radio Methodist Healthcare; Pennzoil Tires Auto Body Repair Berkley Hills Baptist Church; Mack's Body Shop Sue's Massage Downtown; Day's Inn Exit 410; Shell Chevron Suncrest Inn; Truck Wash Exit 470; Has Anybody See My Gal?; 300 used Cars and Trucks Cool Pool Place; Exxon Desoto Exit 105 For Chryslers Sakes; Buy Ford and Kingsway Homes; Harrison For Congress Oil Lube Filter $11.95; Microsurgical Vasectomy Reversal 32 miles east of Waco Bear Creak Road 3/4 Mile; Bear Left Don't Look Down." John sings: "There was a farmer who had a dog, B [burping] was his name-O." And I wonder what it is like not to be able to read.

The sun has brunt the dew off Corpus Christi, Body of Christ, Texas. Vultures tear rags of flesh off a dead coyote on the shoulder of the highway. If it weren't for the apples I bought yesterday, we would not have eaten a single piece of fruit in four days.

Peter opens a one-pound bag of candy for Ben who is tipping a full two-litre Coke bottle upward. The centre of his mouth is a rotten ring of teeth as though he has sucked a thumb of sugar from birth. They are looking for the word "toilet." There are rest rooms. Wash rooms. But no toilet.

Pancho is glancing out the window into the rearview mirror toward the Ford that trails behind, as he had done every few minutes for the past four days. It pulls over for the seventh time since sunrise. David, Henry, and John decide there is dirt in the gas tank. Peter comes into the van for bologna and bread. The vegetation is stunted on the roadside. Everything is smaller. Little burrs catch on our socks on the path between the two vehicles. In a dry pasture, a mare swats flies with its burred tail under a windmill's spinning gearbox. A line of hydro poles file through the grass to a ring of horses and the bones of a dead coyote. A police car sleeps in sparse shade. Across the median, John notices a green '61 Ford truck pulling a boat, its propeller spinning in parched wind. "Looks like rain," he says. An hour later it starts to drizzle.

We pass Orphanage Road. Hernandez Funeral Home points south. An engine starts. Stalls. Another stops. Another follows.

"Ah shit!" says John.

An arrow marked "Free Trade Bridge" is leading us home. Yard sales rise from Mexican neighborhoods of unemployed workers while America spews Exxon exhaust down its last highway at rush hour. "Free Trade Bridge to Mexico 4 miles ahead." John points at a 1950s John Deere tractor freshly painted in someone's front yard.

"Looks like Mexico," I say.

"Hope not" says John. "Don't like Mexico. But I would if I had land."

"Don't like Canada either then?"

"Don't know what I like."

A Mexican flag hands next to Stars and Stripes at Pintos Automatic Transmission Shop heading into Brownsville, Texas. The truck pulls over again. The boys decide it needs a new coil. David asks how much one costs and I say, "cheap."

"Maybe at a yard sale," says John.

"We're almost there," answers Willie.

VII

Lilies of the field unite; you have nothing to lose but your dreams.

Willie, Trudy, Susie, and Henry sit like refugees on cardboard boxes. A fan without a shield leans into the windless night. Curtains fall onto a collection of plastic coffee mugs and a girl's used bicycle. The pile continues to grow on the asphalt. Everything is suspect. The customs official takes inventory of the contents of a fourth box. A dozen worn-out pairs of shoes are dumped. A white bedroom table lamp is in one hand, and a red Japanese guitar with two machineheads missing is in the other, of a man with an ass like an elephant and a billyclub on his belt. A garden hose is tossed out, four new lawnmower wheels without mower, tossed in. the pile doesn't stop growing until the trailer is empty. An estimate of value has been made in his head. The issue: "How much can I extract for this yardsale junk in import duties?" To the case of used car parts, he instinctively attaches the highest value. He knocks the ashes off his cigarette. They fall into the open hand of Peter, sitting. "What shall we do my brethren? We pay or we stay."

VIII

Inside Mexico:

Beneath the street lamp, a frayed shirt that was once white slides down chain-link to the sidewalk and groans like it was shot. Holds his head in his blackened hands. His wounds are still fresh. He bows his head in the dark and says we will have to do something now or he will die. In all this time, he never let on. We wander the street looking for essence of cloves. In a pharmacy, Pancho opens wide toward the fluorescent light. I dab the oil over cavities so large that his mouth appears to be entirely rotten. For a month he has been waiting for a dentist his father could afford.

"As soon as possible, we'll take care of that," says Peter.

A blind accordion player shuffles along a hollow street, one hand on the shoulder of a child, the other on the keys. His caretaker holds aloft her empty can. They stop at a hotel lobby, she looks in with curiosity; he, with instinct. Mexican cowboys lean against department stores that trophy Playboy underwear. A salesman glares after a woman with tight jeans and round ass, perfectly proportioned, strolling with the hand of her child. He grabs at the window and asks Pancho if he likes girls too.

As they have a fear of public places, we bring fried chicken to the van, and as we have no soda pop, the children sip at the beer I bought to celebrate our arrival in Mexico. Pancho wipes the grease from his face with the brown paper bag the chicken came in. The shoulders of the street crumble into grass and darkness and sleep.

The blind accordion player pulls black lungs out of his chest and hyperventilates for the crowd.

IX

Next day we arrive in Manuel Colony, Tamaulipas, and break into the house Peter claims he bought, although he has no money. Two dead scorpions lie in the kitchen sink where they'd fallen. A living one drops from the ceiling. I stomp on it until it stops moving and tell young Benjamin to put his shoes on.

A dog is barking on the end of a chain toward a figure of salt moving on the horizon, its heart fill of hallelujahs. The strays have found a home.

In the barn, two hats are nailed to the wall as if waiting for something to move. They belonged to brothers. One shot the other because his dog crossed his yard.

But first he shot the dog.

The survivor, who once lived in this house, joined the Sommerfelder Church.

He was saved by grace

and not by works.

All images and text excerpted from
The Mennonites. New York: Phaidon Press 2000.

Slowly she pushes the bowl of warm water away, wiping her feet with her hair. Margaret likes to wash herself the old-fashioned way. Framed by a window. You hear the night sounds walking past with a stick, a bunch of keys, and a chain; it stands in the barn door staring, slightly hunched over and singing … "Bringing in the sheaves …"

La Batea Colony,
Zacatecas, Mexico.
1998

La Honda Colony,
Zacatecas, Mexico.
1998

La Betea Colony, Zacatecas, Mexico, 1992

There is a concentration of living and breathing, of child-rearing and lovemaking, a strong divine love that cannot find satisfaction in any object in this house or outside of it. Therefore nothing is wasted on embellishment. The air itself is thick, as the ventilation is poor and the odours have become part of the woodwork, extracted from the fumes and the essence of wood-burning stoves, cigarette smoke, the evaporation of fried pork lard, common dirt, fresh bread, laundry soap, dung-laden shoes and the heavy smell of human beings accustomed to frequent manual labour and infrequent bathing. Like incense, this effluvium comforts me.

Haldimand-Norfolk County, Ontario, Canada, 1998

Her fingers are hummingbirds among meagre flowers that the earth is attempting to strangle with its dry gloves on. But I know, to her the flowers are so numerous and of so many colours and hues that she sees in them everything they want her to see. There is a steady stream of correspondence among them all: her, the flowers, and the hummingbird fingers. Her adoration for beauty wingbeats each petal with weight and sustenance.

That night it rained and the rain fell like blood over the people and over all the land. Soldiers rattled their sabres against the sky's metallic heart, a forty-five gallon drum of water. In the morning, barnyard dogs were lapping at the blood again, howling with hunger for more. Then the dawn pulled out its knife and stuck it in the heart of her pig.

Peppermint sticks grow among the vines. Children reach in, hungry for candy. Mothers sit cross-legged in sunburnt air with the world under a blanket, a suction cup at their breast. Men with brown-stained teeth stare into the white skull of sun, their taskmaster.

Then they rise together at dusk and move toward the lights of houses, yellow stars across the field. They speak quietly, almost inaudibly. Alone.

Manuel Colony, Tamaulipas, Mexico, 1994

Parents encourage dating because if their children fall in love they might stay. Children exposed to the north, dream of returning north. Here in the poorest of the Campeche colonies, if one is exposed and the other not, and if they do fall in love, perhaps the one's reluctance to enter the unknown will outweigh the pull felt by the other to leave; and the one who has been exposed will plant roots here if memory is left to wither.

Manitoba Colony (Cuauhtemoc Colonies), Chihuahua, Mexico, 1991

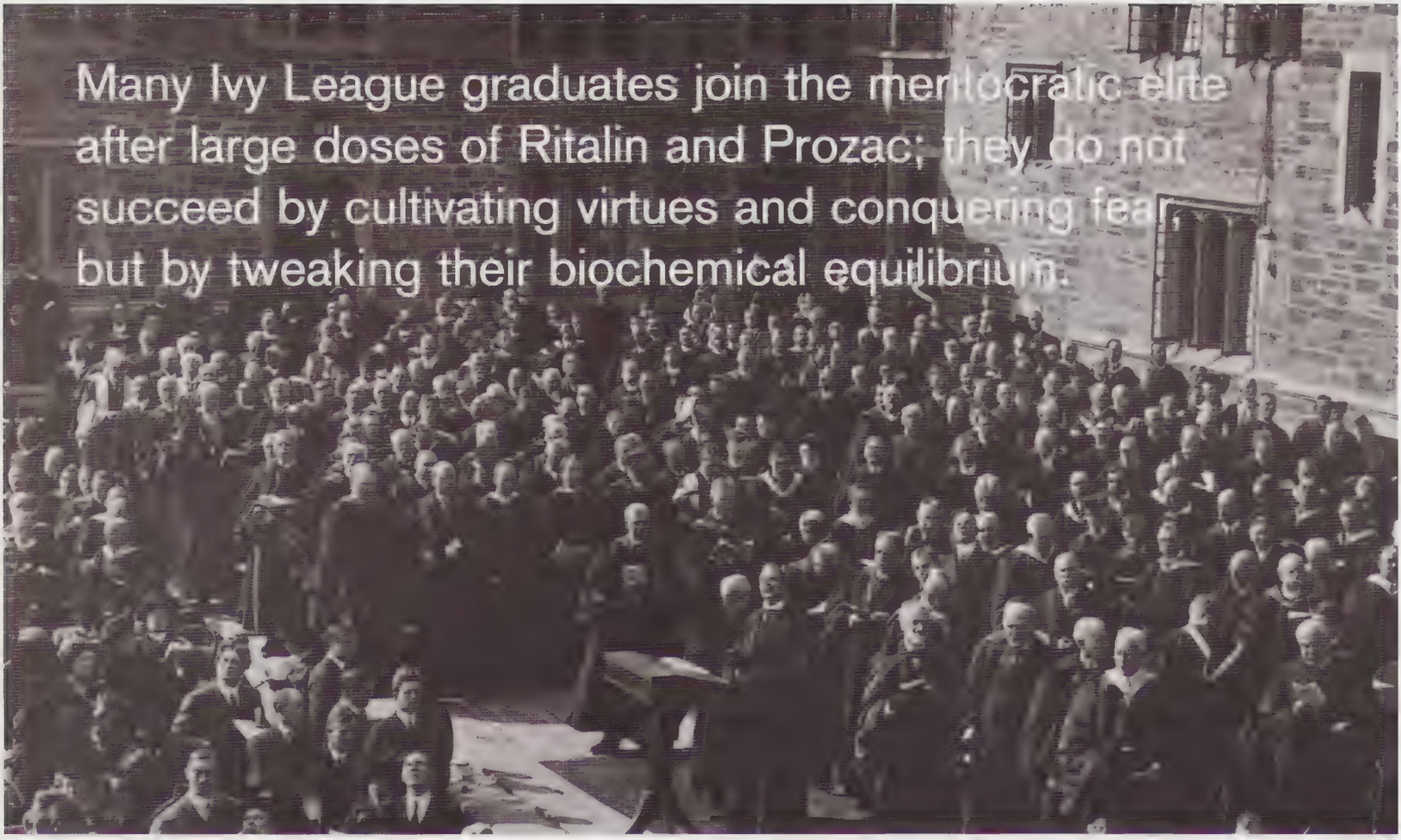
La Batea Colony, Zacatecas, Mexico, 1994

The sun sifts across the blood of a sow that was slaughtered this morning. A fine layer of dust settles on the roofs of houses. The sun cracks and burns, waiting for rain in a dry year. Dogs bark barnyard to barnyard in the near darkness at the arrival of a man into their yard, or just passing by.

Ojo de la Yegua Colony (Cuauhtemoc Colonies), Chihuahua, Mexico, 1992

I tell Margaret if I wasn't married, I'd be trying to date her. She seems flustered by my suggestion and I tease her again by asking if she's ever been alone with a boy in a car. Then I said I liked her hair. Her sisters laughed when I asked if she kissed on the first date … I'd gone too far. I'd embarrassed her in front of her siblings and she blushed and averted her eyes for the rest of the week. I tried, but could not find the privacy to apologize.

Kent County,
Ontario, Canada,
1994


Many Ivy League graduates join the meritocratic elite after large doses of Ritalin and Prozac; they do not succeed by cultivating virtues and conquering fear, but by tweaking their biochemical equilibrium.

THE COSTS OF CHARACTER

By Thomas Augst

The graduates shift in their seats while the president augurs a future of promise and peril. Parents and family members sit and stand in their Sunday best, assuming that self-conscious formality typically reserved for weddings and funerals. The kitsch of academic pomp — the robes, the school songs, Latin words — dispels profane worries about job prospects and tuition costs in the sacred aura of tradition. In the seriousness of attention and the stiffness of honor bestowed on the occasion, we would protect our children from contingencies of fate, secure for our nation the blessings of providence.

As other overtly religious and political forms of ceremonial speech — the fast-day sermons, the Fourth of July oration — have lost their popularity, the graduation speech remains a predictable, enduring fixture of our civil religion. Universal schooling now gives standard shape and direction to the youths' rite-of-passage to adulthood, as that progress we make through hierarchy of grades. As colleges opened their doors to a mass middle-class, and as their degrees became necessary to economic and social mobility, education itself has become our most vital form of public faith.

The commencement speech has always mattered less for what it says than what it does. Trading in the gestures and rhythms of religious ritual, graduation consecrates a community of citizens within a moral order. In 1913, when John Hibben gave his baccalaureate sermon at Princeton, that moral order remained firmly anchored in the familiar values and images of the Judeo-Christian tradition. Following the classic formula of the Puritan sermon, Hibben begins with two passages from the book of Samuel in the Old Testament, and devotes his talk to the "application" of the Biblical lesson to the future lives of the graduating class. That the lesson itself contains a moral truth is not open to question: we can take the revealed Word as the foundation of moral truths, returning to it at every stage in our lives for a reliable source of guidance and consolation.

Like his Puritan forbears, Hibben relies on the struggle between good and evil to give his lesson its dramatic urgency. By the early twentieth-century, however, the eternal duel between God and Satan has been personalized as an internal conflict between virtue and vice, summed up in the title of the address: "Beware the Divided Self." It is a jungle out there, but you should fear the beast within you: "Human nature is strangely inconsequent," and "no one of us is so steadfast, no character so thoroughly established, as to assure a complete immunity form the danger of doing what we at heart despise." Victorians liked to think of life as a test of character for which only men were properly equipped, and which only began in adulthood, when a youth first tasted his freedom outside the custody of family and school. "There are forces within us still unsubdued, still organized," and the "disintegrating forces of our own natures render character unstable and insecure." Like a naïve and earnest Dr. Jekyll, youth is "naturally generous, noble, given to impulsive magnanimity," but Mr. Hyde lays waiting inside, a midlife crisis just waiting to happen.

Like every commencement speaker, Hibben speaks of "the growing complexity of life," the "rapid changes of circumstance and condition in our lives." The trial of character that this world poses for the young

Hibben addressing graduates and dignitaries in 1913.

The members of every coming generation find the idealism of their parents obscene against the hard realities of the Darwinian, Nietzschean world they must confront beyond the hallowed halls.

graduate however, is not one of knowledge — the uncertainty of what path to take — but about action and conviction. Within the citadel of character, "the traitor within" tempts guileless preppies to gratify their desires, to pursue their self-interest, indeed to forget entirely the noble cause for which they fight, which is their own moral dignity and humanity. We must be on guard, "and discover those weak places in our nature which may first show the strain, when the pressure of the world's great forces are brought to bear upon us." Like Ulysses, we must anticipate in advance the temptations we will face, and know the enemies we harbor within us: when the sirens call us to our doom. we will have lashed ourselves to the study mast of Christian duty: "there is but one safeguard, an absorbing passion to love and to serve the great world of human beings about us whose need can make us sublimely forgetful of ourselves. Truly he who loses his life shall save it."

Hibben's commencement speech is addressed to the will: it seeks to inspire and exhort more than inform. Hibben warns the graduates against an ethos of cynicism and indifference that he associates with "modern" philosophy (especially Darwin and Nietszche): "Let the strong use their strength for their own gain. Let them be capable both of frost and of fire in the breath of their desire. ... Life is a game; human pieces are on the board; we must move to our advantage, and shall we not sacrifice a pawn in order to capture or to checkmate a king?" Although they would point to rather different culprits — postmodern theory of Jacques Derrida and Michel Foucault. or multicultural relativism — critics of the modern academy have, in their nostalgia for Victorian character, similarly lamented the loss of a stable moral framework of social obligation and self-control.

As though to inoculate the pink-cheeked graduates against the disease of skepticism, against the nihilistic calculus of self-interest, Hibben closes his speech as though rallying the troops:

You enlightened, self-sufficient, self-governed, endowed with gifts above your fellows, the world expects you to produce as well as to consume, to add to and not subtract from its store of good, to build up and not tear down, to ennoble and not degrade. It commands you to take your place and to fight your fight in the name of honor and of chivalry, against the powers of organized evil and of commercialized vice, against the poverty, disease, and death which follow fast in the wake of sin and ignorance, against all the innumerable forces which are working to destroy the image of God in man, and unleash the passions of the beast. There comes to you from many quarters, from many voices, the call of your kind. It is the human cry of spirits in bondage, of souls in despair, of lives debased and doomed. It is the call of man to his brother … such is your vocation; follow the voice that calls you in the name of God and of man. The time is short, the opportunity is great; therefore, crowd the hours with the best that is in you.

At the turn of the twenty-first century, Hibben's lesson seems peculiar and maudlin. as stilted and clichéd as Harriet Beecher Stowe's *Uncle Tom's Cabin* or Charles Dicken's *Oliver Twist*. The moral world for which it speaks is essentially melodramatic and hierarchical. Right and wrong are as readily seen as the contrast between black and white. There are "higher laws" to follow, a "natural nobility" in men that resists the "gravitating tendency" of instincts and passions that will drag us in the gutter if we let them. The rational will stands guard over the tempted body, and a sturdy inner faith stands firm against the howling chaos without.

The young men who heard Hibben's speech would have accepted the melodrama of character as their proper due. As members of the Anglo-protestant establishment, they took for granted that their individual lives should be the scene of epic moral struggle. It mattered that they, in particular, master their inner beasts since they would be trusted with the responsibilities of leadership in a society firmly organized by social hierarchies of gender, class, and race. On their prep-schooled, Ivy League shoulders, the prerogatives and burdens of noblesse-oblige were equally

Thomas August earned a doctorate in American Civilization at Harvard University and his B.A. from Yale. He is presently Assistant Professor of English and McKnight-Landgrant Professor at the University of Minnesota. He is completing a book about literacy and moral life in nineteenth-century America.

Princeton commencement, 2000.

balanced. As the stronger sex, they would fight the wars. As the finest sons of the Anglo-protestant establishment, it fell to them to protect civilization from infidel races. Hibben's speech abounds with images of military chivalry, because in 1913 the soldier still epitomized the virtues of "noble manhood" — resolve, discipline, sacrifice, loyalty. The life lived by such men of character was not an amoral game for competitive advantage, but a battle for Christian glory where the highest distinction an individual could achieve was martyrdom.

Many of the graduates from the class of 1913 would take Hibben at his word, and test their characters on the battlefields of Europe in World War I. The memorials that Princeton and other colleges built for their fallen sons are monuments to Victorian idealism. The mass slaughter and industrial warfare of World War I proved inauspicious for a moral order populated by chivalric individuals making noble sacrifices; when thousands of young men found themselves in the trenches, the sharp contrast of moral absolutes that had brought them there dissolved into an extended siege of gray. Like the taste for melodrama on which it traded, the concept of character seemed suddenly worn out by the 1920s, a tune that had been played too many times. Lieutenant Henry, the narrator of Hemingway's 1929 novel *A Farewell to Arms*, captures the exhaustion which battle-scarred Princeton boys might have felt toward Hibben's inspirational sermon: "I was always embarrassed by the words sacred, glorious, and sacrifice and the expression in vain." When one has watched people die miserable, anonymous deaths, "abstract words such as glory, honor, courage, or hallow were obscene beside the concrete names of villages, the numbers of roads, the names of rivers, the numbers of regiments and dates." But then, perhaps the members of every coming generation find the idealism of their parents obscene against the hard realities of the Darwinian, Nietzschean world they must confront beyond the hallowed halls.

If the ceremonial function of the commencement address has remained largely unchanged, the moral order it serves, the values it consecrates, has undergone profound change.

In May 2000, another president of Princeton, Harold Shapiro, addressed another graduating class. Like Hibben, Shapiro pitched his tent on the high plains of duty:

One way or another, therefore, a certain moral anxiety and ethical controversy are the constant companions of change, and a high rate of change in scientific, political, economic or social matters, such as we are all experiencing in contemporary life, can be expected to be accompanied by a high level of anxiety and ethical controversy. We have to accept the fact that in a world that is changing as fast as ours, all thoughtful citizens will have to share in the anguish of finding the right moral perspective within which to accommodate these changes so that we may all share in a better future. Each of us, as individuals, is invested with a great deal of moral autonomy, but also moral responsibility. Indeed, the moral authority and responsibility that is now presumed to rest on the shoulders of each one of us is perhaps the most significant aspect of modern life. It is both the greatest source of our freedom — and our freedom of conscience — and the most important foundation of our moral responsibility. In order, therefore, for each of us to meet our moral responsibilities and protect our freedom, we must face and deal with the moral anxieties and ethical controversies of our time. In such circumstances all thoughtful persons need to be anxious about just what it is we ought to be doing, why we should be doing these things, and what set of objectives we have in mind.

The modern commencement speech remains, in many ways, haunted by the moral imperatives of character. The new graduates, like those of yore, should feel the weight of responsibility as they test their freedom. As they venture into a complicated, changing world, they must be courageous rather than complacent: "we must face and deal with ethical controversy." Because ecological thought and the animal-rights movement have

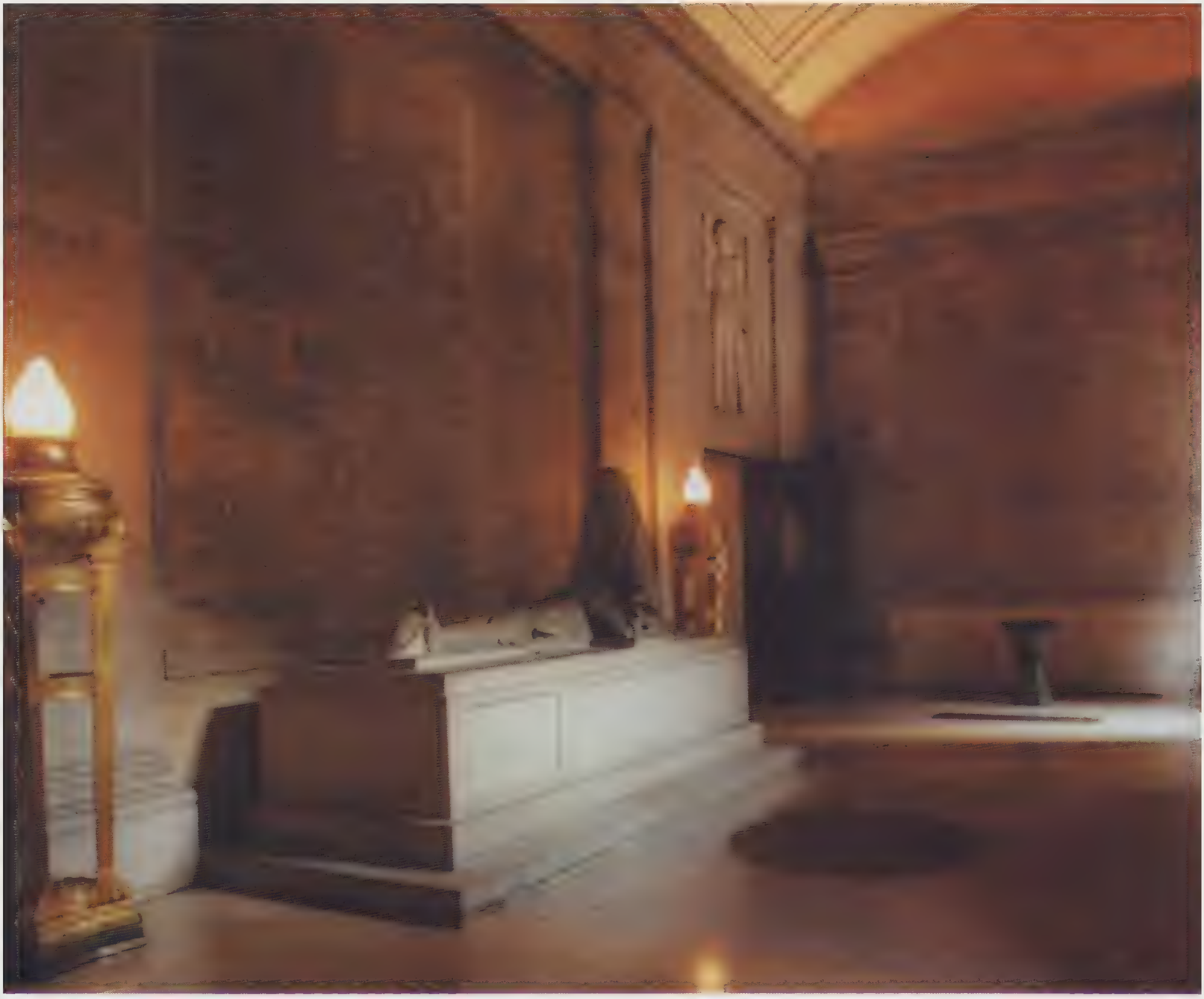
Like the slogans on Hallmark cards chasing Generation X, moral values have sucumbed to planned obsolescence. They are nostrums we take to blur distinctions that might otherwise become too stark, to numb any discomfort we might feel on the road more-traveled.

Princeton commencement. 2000.

robbed contemporary humanity of its special rank and privileges in the great chain of being, Shapiro forgoes the lurid references to "the beast within." Given the entrance of women as undergraduates into the Ivy League (and even into the exclusive Princeton eating clubs), and the rhetoric of equality that the civil rights and feminist movements reinvigorated in our public life, the masculine and paternal ideal of chivalry has moved outside the pale of commonly accepted speech. Most noticeably, Shapiro mentions a Charlie Brown cartoon in place of the Biblical lesson. Despite the obvious differences in cultural reference that separate 1913 from 2000, Shapiro nevertheless invokes the basic argument of Hibben's metaphor, which is that moral duty demands self-reflection: "All thoughtful persons need to be anxious" about the choices they make and the motives behind them.

If we become strong by looking at the dark side, however, it is not from the self-mastery we achieve over our own desire, from any conquest of our personal capacity for evil. Indeed, instead of the familiar and lurking presence of Mr. Hyde, we have the rather abstract specter of "moral anxiety and ethical controversy" generated by the impersonal "high rate of change in scientific, political, economic or social matters." For his examples of ethical controversy Shapiro turns to the milestones on the ever-expanding frontiers of science — genetics, Copernicus, Darwin, Freud. Each of these "steps" "generated great moral anxiety and ethical controversy as they forced us to reconsider the nature of what it means to be human and the ultimate role and purpose of human communities."

Nothing marks the distance between 1913 and 2000 more than the word "anxiety," which Shapiro repeats some 25 times. The anxiety reflects the absence of any fixed moral framework — the "anguish of finding the right moral perspective within which to accommodate these changes." In repeatedly using this word, Shapiro implies both the banality and inevitability of ethical uncertainty, as a seemingly "natural" response to the endless production of complexity proceeding inexorably around us. Where Hibben's world was saturated with a rich language for describing the merits of individual action — nobility, sacrifice, loyalty, generosity — Shapiro's world seems incapable of imagining moral distinction as a consequence of individual choice. Then again, many Ivy League graduates join the meritocratic elite after large doses of Ritalin and Prozac; they do not succeed by cultivating virtues and conquering fear, but by tweaking their biochemical equilibrium. The anxiety to which Shapiro returns so



relentlessly is a matter of feeling rather choice, a response to external stimulus rather than a stand we take in an internal struggle. In place of Hibben's insistence on moral dualism, we have Shapiro's insistence on the psychotherapeutic dualism, the struggle between anxiety and normality rather than good and evil.

Shapiro speaks as though we live in a world without moral choices: it is natural to feel anxiety in the face of change and normal to wish to overcome this discomfort. In fact, he is recommending relativism as a moral commitment. Every "thoughtful citizen" should become anxious. The anguish and anxiety of "ethical controversy" are necessary if we are to "accommodate these changes" which we are running after. The ethical imperative is not to stand with heroic resolve against the disorder and the irrationality of the adapting ourselves to a version of human progress driven by impersonal forces of technological change. "And today, we strain harder than ever before to define ethical guidelines that will help us to navigate this floodtide of discovery, as we struggle to construct new moral perspectives within which science and technology can thrive in ways beneficial to both individuals and society at large." Lest we feel overwhelmed by this "floodtide of discovery," we must make a habit of anxiety, become addicted to new moral perspectives. Like junkies chasing an ever-receding threshold of happiness, the Princeton graduate needs to get used to withdrawal and "strain harder then ever before" for the next fix of moral order. Our "vocation" is not to fight for principles that are themselves certain and absolute, but to learn to see the world from whatever perspective that minimizes our discomfort with change. These days, every generation picks its poison to take the edge off of what Thoreau called our "lives of quiet desperation," the glib consumerism and treadmill of work which passes for success among the professional middle-class.

No president of the modern university would speak with Hibben's smug, didactic assurance about the truth, because the truth is no longer indexed to the "higher laws" of Judeo-Christian thought. Until the twentieth century, colleges viewed the teaching of Christian ethics as a rudimentary part of the liberal arts curriculum. By the turn of the century, however, academia was embracing new professional ideals of specialization and objectivity that were associated with positivist inquiry in the natural sciences. As they devoted ever larger pieces of their budgets to the sciences, and integrated themselves into the larger military-industrial complex, the primary business of American universities became "research," the

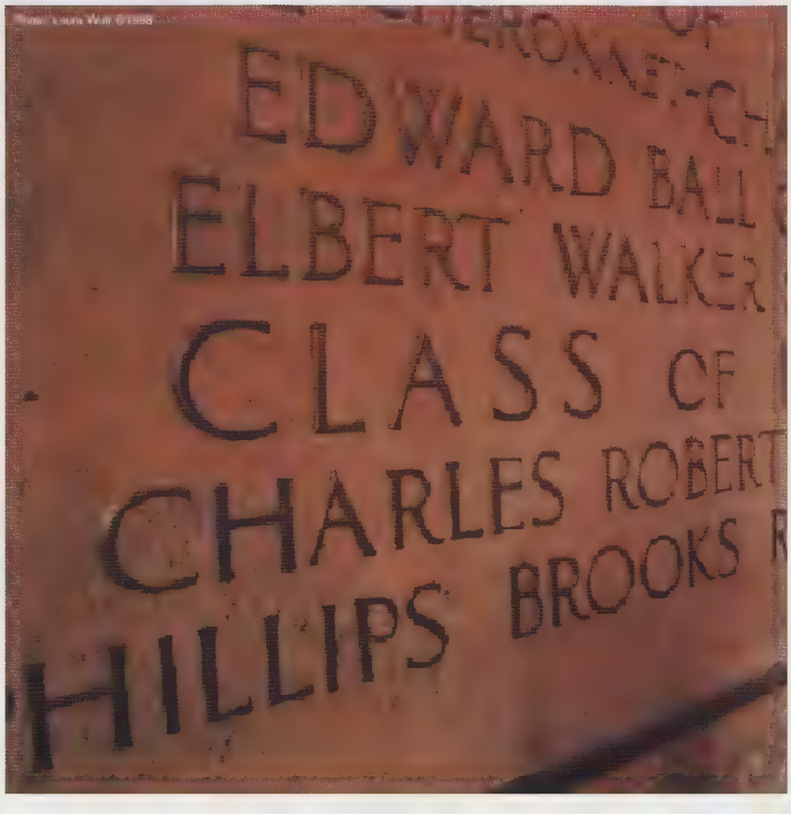
The Memorial Room to Harvard's fallen graduates of WWI in the Memorial Church at Harvard University.

Where Hibben's world was saturated with a rich language for describing the merits of individual action — nobility, sacrifice, loyalty, generosity — Shapiro's world seems incapable of imagining moral distinction as a consequence of individual choice.

production of secular knowledge about the physical and social world. The subsidiary business of liberal arts education has an essentially therapeutic purpose, teaching undergraduates to go with the flow of this "floodtide of discovery" — to resign themselves to the inexorable laws of complexity and instability on which the information economy and the "progress" of civilization depends.

Like Shapiro's address itself, the liberal arts teach us through the arts of rationalization and abstraction to depersonalize moral life into ethical quandaries about cloning sheep and the like, that transmutes the spiritual struggle of conscience into the relentless worries of the type-A personality. The "vocation" of Ivy League graduates is to grease the wheels of progress, manage the levers of corporate bureaucracy, and line their pockets without losing too much sleep to an upset conscience, or the nausea of regret. Like the slogans on Hallmark cards chasing Generation X, moral values have succumbed to planned obsolescence. They are nostrums we take to blur distinctions that might otherwise become too stark, to numb any discomfort we might feel on the road more-traveled.

By inviting graduates to entertain the "anguish" and "anxiety" of "ethical controversy," Shapiro is offering useful spiritual guidance in a cosmology where moral distinction as an individual simply no longer matters. Those who win in this world are not those who look after their spiritual or moral integrity, but who get out of the way of change. The conventional measure of the meaningful life in the American meritocracy is to work for "organized evil" and play with the "commercialized vice" against which Hibben warned, in the postmodern shape of global capitalism. In the bland repetition of "anxiety," Shapiro's speech evokes the essential banality of modern moral life. No chance for nobility or heroism here, just the numbing predictability of a psychic discomfort we can minimize but never escape.



MILWAUKEE AND CALATRAVA:

CREATING AN ICON

BIG-CITY ARCHITECTURE by Robert Greenstreet

CALATRAVA THE URBANIST by John Norquist

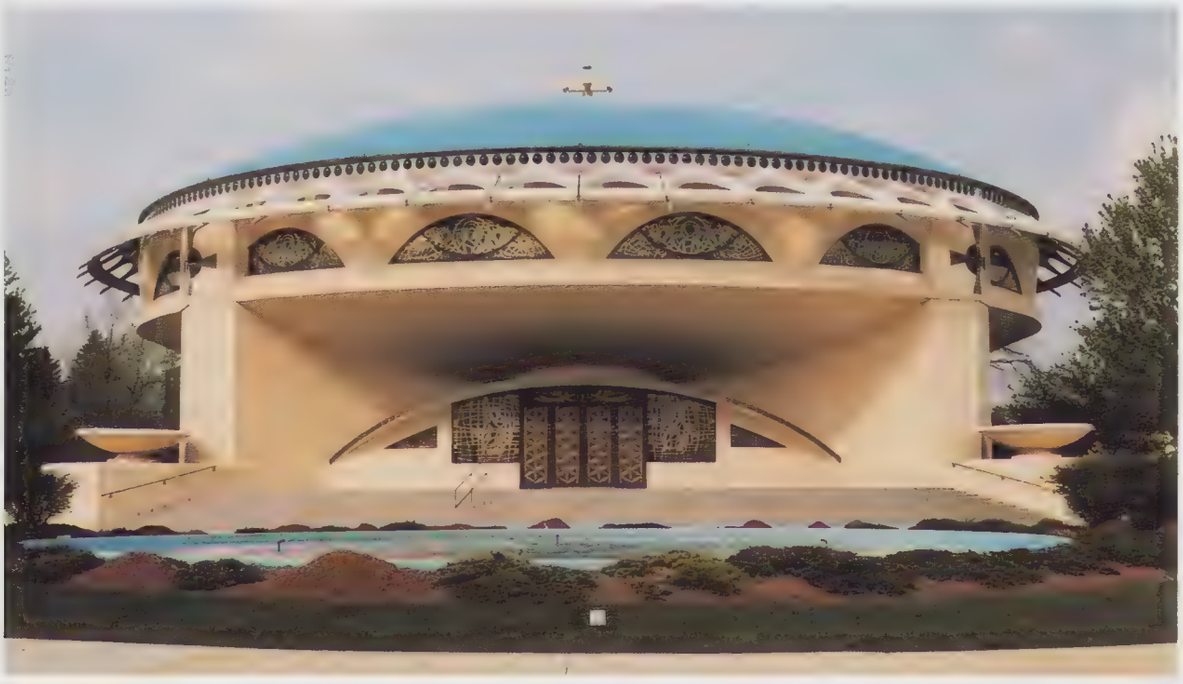
BUILDING AN ICON ... IN 100 MILLION EASY STEPS by James Auer

NOTES ON *BLUE SHIRT* by Dennis Oppenheim

Before he put pen to paper, [Calatrava] took a boat onto Lake Michigan going to the point where the city breaks above the horizon.

Above: The Milwaukee Museum of Art expansion project by architect Santiago Calatrava under construction in spring 2001.

Right: The Annunciation Greek Orthodox Church, Milwaukee, designed by Frank Lloyd Wright in 1956. Wright died before its completion in 1961.



MILWAUKEE LOVES TO CELEBRATE.

Cajunfest, Polishfest, Asia Moon Festival, Festa Italiana, Octoberfest, Irish Fest, and Arabian Fest offer a continuous atmosphere of cultural pride and revelry. When Milwaukee decided to celebrate this heritage, it built Festival Park, a massive outdoor concert and fair grounds on the shores of Lake Michigan. Milwaukee loves beer. Miller, Pabst, Blatz, Schlitz, all once made their runs at the world's largest breweries, and in their shadows, a half-dozen micro-brews still feed the yearning masses. Until recently, the Milwaukee Brewers baseball mascot slid into a giant mug of beer to celebrate each home run. When Milwaukee decided to celebrate this heritage, it built the new Miller Park, a $400 million icon to baseball, beer, and bratwurst.

Milwaukee loves the arts. When one steps back from the vibrant rhythms of polka, jazz, and rock playing at Festival Park, and the jovial organ of the stadium, one picks up the strains of Mahler playing at symphony hall, Samuel Barber being performed with the Milwaukee Ballet and Richard Strauss by the Florentine Opera. When one walks through the halls of its museums, Picassos, Rembrandts, Chagalls, Rauschenbergs hang on the walls in packed galleries where Calder dangles from the ceiling. To get there, one passes buildings by H.H. Richardson, Frank Lloyd Wright, Daniel Burnham, and Eero Saarinen. New outdoor commissions by artists Dennis Oppenheim, Dan Kiley, and Magdalena Abakanowicz will further enhance the city.

Beginning with great German beer barons carting their possessions and patronage to America's new brewing center in the 19th century, Milwaukee has developed into one of the nation's premier stages for the visual arts, music, dance, and theater. The same popular art forms of Saxony, Dresden, and Leipzig blossomed during this great time of prosperity and the city gained the title of "The German Athens of America." When Milwaukee decided to celebrate this heritage, it created a new symbol for the city's continuing support of the arts: a $100-million museum expansion and sculpture park. What has made the unprecedented private fund-raising possible is a dramatic effort in downtown urban revitalization projects begun by Mayor John Norquist in the late 1980s. A new economic belief in downtown enhanced the desire for a new symbol of the arts a decade later. In fact, the mayor even began tearing down the city's freeways to celebrate Milwaukee's traditional urban form.

Mayor Norquist explains about the initial visits of chosen architect Santiago Calatrava, "Before he put pen to paper, he walked all around the site, walked for miles absorbing every vantage point, took a boat onto Lake Michigan going to the point where the city breaks above the horizon. In all aspects, this is a Milwaukee building."

—Joshua Long

Above: Architectural model of *Blue Shirt*, by Dennis Oppenheim, commissioned for the Milwaukee airport.

Below: *Sunburst*, by Mark di Suvero, aligns with the "mast" of the museum and Wisconsin Avenue, Milwaukee's main thoroughfare.

SHIRT BLUES

The museum expansion isn't the only talk of the town, and Calatrava isn't the only big-name artist currently making his mark on the city. While lighthearted conversation surrounds the workability of the angel wings, bitter controversy erupted over the commission given to New York artist Dennis Oppenheim for his sculpture/structure at Mitchell Airport. The county board, responsible for building projects at the airport, threatened to cut off funding and pull the commission because of political pressure and public scorn. Critics and citizens were enraged, suggesting Mr. Oppenheim was making fun of Milwaukee's working "blue collar" population.

Much reaction was cautionary, but all of it passionate. As one writer stated, both of *Blue Shirt* and of blue shirts, "It keeps us warm. It gives us an identity. It protects us against the elements. It's necessary to our survival." It may be that simple. "Anything you can do to liven up a parking ramp ..." another said.

One thing is certain: the controversy has rallied the troops who support the arts and exposed the region to ideas and processes they are rarely confronted with. By paving the way for *Blue Shirt* to be completed, the city steps into the batter's box of municipalities able and willing, albeit with a few foul-backs, to expand the realm of public art and discussion. If *Blue Shirt* had been cancelled, it would have alienated countless volunteers that all cities rely on for engaging artists and making their endeavors seen, heard, and felt. And certainly, any respected artist or architect would question working in this city in the future.

The entire discussion is slightly ironic because as part of an overall airport improvement, which requires spending on public art, the airlines actually pay for *Blue Shirt*, not the taxpayers.

NOTES ON *BLUE SHIRT*

Men my age often find thoughts sinking downward from head to chest, soon drifting to the heart, now pumping faster as the wheels of the DC 9 from JKF to Milwaukee grip the asphalt landing strip, pushing our bodies into a slowdown.

These gut feelings begin an ascent floating back to the mind, like helium balloons, as I curl my fingers around the suitcase handle and push through to the main concourse.

One needs concentration in airports. They should sell it at the juice stand because it's concentration alone that links one airport to the next, makes them all the same. It's actually concentration mixed with distraction that the artist has to pull people from, to get their attention away from the amnesic drift swallowing them into labyrinthine arteries, which are really vessels ... making each traveler a component of blood ... a cell mixing under pressure, some joining, other abandoned, lost. My sensations sink once again, pulled down to that pumping station, responsible for every move I ever made.

We write our own scripts while traveling down these halls of mirrors. There's no director here, the lines ricochet off the shiny corners of glass panes; they tell our bodies what to do. You can be sure what is going on inside you is reflected, like a mirage, on the windows, right in front of your eyes. Airports allow us to travel inside the abstraction of our own bodies.

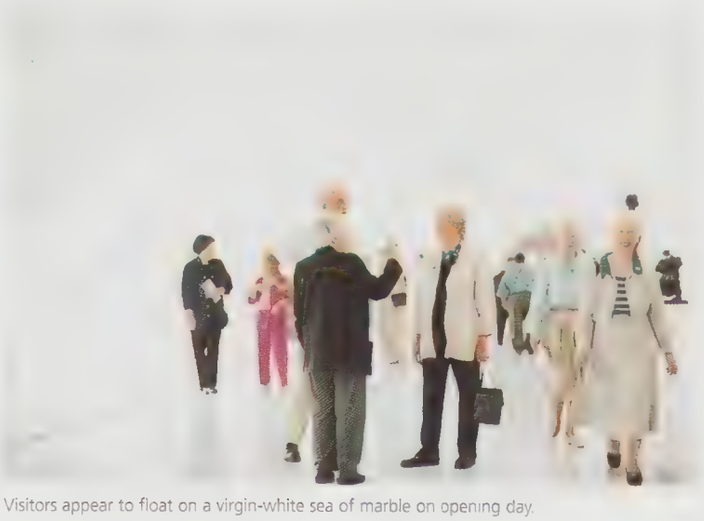
Adjusting my speed to accommodate the shifting tempo of the crowds clinging to me ... blocking my personal rhythm, I dwell once again, on my heart, now pressed tightly between my fingers and launch it above my head; it floats even higher and is captured by a giant crystal chamber located both inside and outside of me. The chamber, like a diamond ... reflects the sky ... I take a deep breath. The air that morning seems cold now, inside this chamber ... everyday, becomes Valentine's Day.

— Dennis Oppenheim

Oppenheim in his studio with *the* blue shirt.

Of course, cutting-edge architecture comes at a price ... and the workability of the brise-soleil is still a matter of conjecture ... No matter, the determination of Calatrava will see to that.

Robert Greenstreet, Ph.D., is an architect currently serving as Dean of the School of Architecture and Urban Planning and Deputy Chancellor for Campus and Urban Design at the Uni[illegible] Wisconsin-Milwaukee. Dr. Greenstreet also serves as c[illegible] City Plan Commission in Milwaukee



Visitors appear to float on a virgin-white sea of marble on opening day.

Detail of the structural ribs of the new side galleries.
Glass, concrete, aluminum, and marble engage in a harmonious interplay.

BIG-CITY ARCHITECTURE

By Robert Greenstreet

Very few structures transcend their basic functional purpose and become a symbol of the city in which they are located. Towers or stand-alone edifices are perhaps the most prolific — Eiffel, Pisa, or the St. Louis Arch, for example — since these are free from the many physical, constructional and functional needs that ultimately compromise every building.

There are, of course, exceptions. The Sydney Opera House has become a powerful emblem of Sydney's renaissance and more recently Frank Gehry's art museum in Bilbao has made that plain, unassuming city a mecca for art-lovers around the world.

Now, possibly, it is Milwaukee's turn. As the extension to the Milwaukee Art Museum nears completion, there looms the potential for Santiago Calatrava's first American building to become the new icon for the city. Certainly, the omens are good. The design of the building, with its revolutionary "angel wings" brise-soleil has generated a huge amount of hype and attention in the world's press, and there is great impatience to see the facility completed. Recent delays have been front-page local news, and TV networks carry breaking news flashes on such detailed matters as the changing of the construction of the brise-soleil from carbon fiber to steel — an unheard-of level of interest in things architectural, which has led to a much-needed expansion of interest in the physical environment within the city as a whole.

While only time will tell if the building takes on iconic significance and replaces the City Hall, a fine survivor of the Victorian era, as the prevailing symbol of Milwaukee, the process of achieving today's structure has been a remarkable one. The designer had to contend with the original Eero Saarinen War Memorial building (not one of his best works) and the newer art museum which was tucked underneath it in the 1970s, facing its entrance to the lake and thus causing problems of entry for visitors coming from the city.

The initial search for an appropriate designer generated considerable enthusiasm from the architectural profession, and the selection team had the choice of some of the best-known designers in the world. Several

members of the team had expressed interest in choosing someone at the beginning of their greatness rather than at the end of it, and in the final analysis, Santiago Calatrava rose effortlessly to the top of the list. His presentation, which entailed a series of rapidly executed watercolor sketches undertaken amid a display of his sculptures flown in especially from Switzerland, convinced the group that, despite his limited portfolio of stand-alone buildings, he was the best choice. Within months, Calatrava had produced the design that has changed little since the unveiling, with the trademark cabled bridge stretching back to the city, the artfully crafted concrete creating the vaulted bridge between old and new, and the entrance lobby, a glazed prow sprouting out of the ground and flanked by its breathtaking brise-soleil that opens out like wings toward Lake Michigan. The initial effect was remarkable. When Calatrava revealed his intentions to several hundred students in the School of Architecture and Urban Planning at the University of Wisconsin-Milwaukee, they spontaneously gave him a standing ovation — a rare phenomenon in this part of the world.

Progress has been swift and fund-raising has been wildly successful. The initial goal of a building somewhere in the $30 million range has now escalated to $100 million, an amount that was made possible by the sheer excitement and anticipation generated by the building's revolutionary design. Of course, cutting-edge architecture comes at a price, and the high costs were matched by delays that extended the intended opening date of December 1999 to the fall of 2002 — and the workability of the brise-soleil is still a matter of conjecture.

No matter, the bulk of the building is complete and the brise-soleil will work — the determination of Calatrava will see to that, and architecture must be viewed in the long term. The Art Museum will be around for generations, and it is important to get the technology right now rather than have the embarrassment of fixing it at a later date.

Even so, the rest of the building is living up to expectations. It is at first smaller than one would imagine — a common trait of buildings that are extensively published (look at any building by Frank Lloyd Wright) — but exquisitely crafted. It has an exuberant, even nautical demeanor that is reinforced by the cables and mast supporting the bridge back to the city. This in itself is a remarkable structure which enables visitors to enter the museum by foot and which effectively ties the building back into the city grid, reducing the perceptual distance between the urban edge and the lakefront. Attention to detail is everywhere, from the vaulted concrete supports of the car park — surely the highest quality space reserved for automobiles anywhere in the world — to the elegantly detailed gift-shop display cases bearing, as you may have guessed, everything from ties to T-shirts bearing the now famous "angel wing" symbol.

The space inside the entrance lobby is breathtaking. Surprisingly little direct sunlight enters the space, which is consumed by the sublime geometry of the structure creating an almost cathedral-like volume. Beneath, the support spaces contain another surprise — a mezzanine of the scale and character of a building by Frank Lloyd Wright, quite at home amid the swirling geometrics.

Left: Sculptured skylights illuminate the side galleries of the new extension. Made of poured concrete, the elements appear organic and alive.

Right: Original drawing of the expansion by Calatrava with wings extended.

John Norquist was first elected mayor of Milwaukee in 1988 after serving in the Wisconsin state legislature. He is also an adjunct assistant professor at the University of Wisconsin-Milwaukee and Marquette University. Mr. Norquist is the author of *The Wealth of Cities* (Addison-Wesley, 1998).

CALATRAVA THE URBANIST

By John Norquist

Inside the new extension, the auditorium, gift shop, and galleries are flawlessly detailed in marble and beech. The walkway facing the lake cleverly frames the sky, the lake, and the lawn in a simple arrangement of horizontal colored swaths that, coupled with the natural light falling through the repeating harmony of the structure, creates an almost Mediterranean atmosphere.

The sleek curve-roofed structure between the existing museum and the new entrance creates a very workable fusion of the three generations of construction and is fronted by a marble plaza and gardens, including two monumental fountains by Dan Kylie. This is big-city architecture that would be at home in any major metropolis throughout the world, and is all the more remarkable for its location in America's seventeenth largest city.

Will Calatrava's first American building become Milwaukee's answer to the Sydney Opera House? Will it, like its sister museum in Bilbao, attract art lovers from across the world? Only public opinion will ultimately prevail in this issue, although the radical nature of the new building has already helped to redefine the nature of art galleries and has certainly raised the bar on architectural awareness in Milwaukee, causing more attention to a single building than any structure since the City Hall in over 100 years.

When engineer-architect Santiago Calatrava came to Milwaukee for the first time, he walked the city streets imagining how his addition to the Art Museum would appear from various aspects. He sailed on Lake Michigan and strolled along Bradford Beach. He rode elevators to high-rise balconies and stepped out of a car on an elevated motorway and then sat still on a bench in Juneau Park. He did something few architects bother to do anymore: he studied the context for his commission before building it. This is especially crucial considering the context of this museum stretches back in time to encompass the history of American landscape architecture and urban design.

North of the Museum along the shore is parkland designed 110 years before by America's greatest landscape designer, Frederick Law Olmstead. Calatrava knew that City Beautiful leaders Daniel Burnham and Alfred Clas worked in Milwaukee, giving it much of its form. He respected the prominent position his structure would sit within it. He asked questions, walked, and thought, only then putting pen to paper.

Calatrava refers to himself as an urbanist, and the skeletal form of his work depends on urban context to transcend pure sculpture. His spinal atrium on Bay Street in Toronto is squeezed between two office buildings separating, connecting, and ultimately redefining them. By connecting two modernist office buildings to the street and its sidewalk, he urbanizes and humanizes them. His Zurich train shed fits into its context so perfectly that it's difficult to imagine the site without Calatrava's creation. Neither the Toronto nor Zurich projects calls attention to itself but each harmonizes with and enhances the preexisting structure.

We live in a time when architecture has become isolated from its sister professions, planning, landscaping, and engineering; isolated also from the lives of ordinary people. The architectural dialogue confines itself to monumental, self-referential, and too often self-reverential work.

Museum and airport commissions are the mark of star architects like Gehry, Meier, and Pelli. With the focus on stand-alone, object-oriented designs, the ability to adapt to the built fabric in a way that respects the existing city is becoming a lost art, mainly from lack of effort and ineffective regulatory oversight. Only Berlin planner Hans Stimmann, backed by regulatory powers reminiscent of Baron Hausmann in mid-19th-century Paris, has imposed contextual concerns on the reigning stars of architecture. Frank Gehry's contribution to Berlin is built on a city block among other buildings along a street. Only one side was available to Gehry for his famous style. His creativity was forced indoors where his atrium awaits to delight the curious just as in New York City's Woolworth Building lobby stuns anyone who sees it for the first time.

In Milwaukee, Calatrava has no such constraints. Once hired he could almost do what he wished, but what he wished for was to build in context respecting Milwaukee, its history and its people. The museum addition connects with Lake Michigan with a variety of views and connects to the north and south by preserving and enhancing a broad public walk along the shore. The brise-soleil, structural wings that change position as the day proceeds, rises about the hall that connects the bridge to both the museum and the lakeshore walk, making the overall effect more a part of the city than itself as an object: a true mark of an urbanist.

We live in a time when architecture has become isolated from its sister professions: planning, landscaping, and engineering; isolated also from the lives of ordinary people.

Under construction, 2000.

Work progressed on opening day.

James Auer is the art critic for the *Milwaukee Journal-Sentinel* and an award-winning documentary filmmaker and theater producer.

BUILDING AN ICON ... IN 100 MILLION EASY STEPS

By James Auer

Until recently the Midwestern metropolis known as Milwaukee hadn't had much luck with its Herculean, and largely ineffectual, efforts to elevate its profile on the world stage.

Identified more with foaming brew, steaming brats, and celebrity-laden motorcycles than with the fine arts, Wisconsin's biggest city languished in the dark, and ominously overlapping shadows of two far larger rivals: Chicago and Minneapolis. And that was ironic, for Milwaukee, which anchors a metropolitan area of about 1.4 million souls, picturesquely sited on the western shore of Lake Michigan, has a long tradition of music, theater, and art, much of it with a Germanic accent.

Its principal visual-arts venue, the Milwaukee Art Museum — situated in a boldly cantilevered pillbox on a hammock overlooking the lake — was small but far from insular. Its crisply lined modernism echoed that of its architect, the famous Finnish émigré Eero Saarinen. Alas, despite the completion in 1975 of a commodious addition designed by local architect David Kahler, the museum had many needs that remained unmet. It lacked a coherent, welcoming facade and sufficient space for exhibits and collections. More than that, its institutional persona was amorphous and elusive. Was it a general museum or a specialized showcase for modernism? The inevitable result: even for many a Milwaukeean its identity was oddly undefined. Its collections tended to be balkanized, without stylistic or chronological continuity. Its patrons, though loyal, were concentrated in the clubby Upper East Side. It was a challenge the art museum's professionally conjoined leaders decided to meet head on. But how?

The museum, a union of the historic old Layton Art Museum and the more avant-garde Milwaukee Art Institute, had observed its centennial in 1988, but that was more a matter of survival than of triumph. It was now

time to take a decisive, headline-grabbing step into the spotlight. It was time, the directors agreed, to look for an architect of originality and daring.

In December 1994, Santiago Calatrava was chosen out of a field of 55 applicants to be project architect. In February 1996, the board of trustees approved Calatrava's emerging design, and launched what they said would be a $35-million capital campaign. It was the first shot in what was to become known around town as the battle of the continuously expanding budget.

The community rose to the challenge and matched a $10 million private donation. With momentum building, the museum's trustees in January 1997 approved a vast expansion to the project's scope. The price tag was now upped to $50 million. The financial logjam that has for so long afflicted major Milwaukee nonprofit projects now broke with all the explosiveness of an Alaskan winter yielding up to spring.

In March 2000, the trustees boosted the construction budget to $75.1 million. By now, the expansion totaled 142,050 square feet, twice the originally announced figure. By October, $66 million had been raised. Before long, the trustees acted again, boosting the budget to $100 million, of which $2.3 million would be used for inaugural parties.

Perhaps inevitably, the entire building wasn't ready for its scheduled May 4 opening. Nevertheless, on that date, 4,000 guests trudged, skipped, ran, and danced through the newly completed galleries. It was the biggest demonstration of cultural populism, on observer remarked, since Andy Jackson invited the citizenry into the White House for his inauguration in 1829. Viewers fondled Eva Hesse fiber works and sat down in priceless chairs. But nothing was damaged, and everybody went away happy.

Museum administrators are hoping that equal enthusiasm will be shown on September 14, when the grand reception hall, restaurant, parking garage, and footbridge are scheduled to open. As for that pesky brise-soleil, grandiously hyped as the crowning glory of the entire complex, Calatrava promises that it will be ready sometime this fall. It is currently being fabricated in Spain, out of top-grade carbon steel, and will be flown to Milwaukee for installation.

It will be in place, Milwaukeeans are noting, just in time for a typical Wisconsin winter. Calatrava professes to be confident that the vast sunscreen, whose 217-foot wingspan is equal to that of a 747, will prove equal to even the most determined assaults of snow and sleet ...

... In the meantime, the locals are simply standing back and watching, facinated.

The Saarinen "pillbox on a hammock" sits above the new addition while under construction in 2000.

Workers on the gallery rooftop scrub and polish for opening day.

Lance Acord on the set of *Adaptation*, photographed by Spike Jonze.

THE ART OF VISION

In recent years, it seems that the trend has been for American movies — the indie as well as the Hollywood variety — to be rewarded for a criminal lack of visual intelligence. When directors demonstrate a strong aesthetic sense, it's often neglected in the film's critical reception. And in the Sundance dog-and-pony-show, story-driven movies with soggy visuals like Kenneth Lonergan's Academy Award–nominated *You Can Count on Me* tend to come out ahead of films in which photography, design, editing, writing, and acting combine in an inspired way to relay a narrative cinematically.

In this special section, two innovative directors, Michael Almereyda and Spike Jonze, discuss the complexities of developing a visual point-of-view through cinematography. Almereyda, who recalls the lessons he learned while shooting his first film, *A Hero of Our Time*, wrote his piece fresh from directing his latest project, *Happy Here and Now*. Jonze talked with us about his longtime collaboration with his talented director of photography, Lance Acord, and shot photos on the set of his forthcoming film *Adaptation* (which, like his last feature, *Being John Malkovich*, was directed from a script by Charlie Kauffman — this one weaving a tale around Kauffman's attempt to adapt Susan Orlean's book *The Orchid Thief*). At the end of the section we also profile four cinematographers who have done work in the U.S. in recent years that deserves special attention.

— *Kristin M. Jones*

FIRST AND LAST
(notes on cinematography)
By Michael Almereyda

Interview with
SPIKE JONZE

Profiles:
JIM DENAULT
ROBBY MÜLLER
LISA RINZLER
ED LACHMAN

FIRST AND LAST
(notes on cinematography)
By Michael Almereyda

> "I've lost my capacity for noble impulses, for I'm afraid of making a fool of myself."
>
> — Mikhail Lermontov, *A Hero of Our Time*

My first movie was a self-financed short, roughly a half hour long, shot in black-and-white on 35mm. It was based on a chapter from *A Hero of Our Time* by Mikhail Lermontov.

(Lermontov's book was virtually the earliest example of a new genre: the psychological adventure story. He published it in 1840, shortly before getting killed in a duel at age 26.)

The first day of filming, my first day behind a 35mm camera, started with a scene involving Dennis Hopper, alone, firing an automatic pistol into a swimming pool.

At the time, my prevailing influences were European directors who favored long takes, long tracking shots, a certain aesthetic rigor.

This scene, then, was a sustained single take, the camera tracking across the length of the patio while Dennis, in a lounge chair, observed a pool-cleaning device snaking through the water. Then he pulled out the gun, emptied the chamber.

This was in Los Angeles, October of 1985, during Dennis' break from the shooting of *Blue Velvet*. The pool belonged to a movie producer named Edward Pressman, for whom I'd written a screenplay which, not incidentally, financed the short.

We arrived at dawn, a small crew, equipment crammed in a single white truck. Pressman's housekeeper seemed puzzled by our presence but we managed to explain ourselves; Dee, my girlfriend and the true, uncredited producer of the film, had a magnificent gap-toothed smile and a talent for calming and cheering people.

I have a vivid memory of the panoramic poolside view, sprinklers on auto-timers rattling like machine guns throughout the Hollywood hills. The crew set the track; the sun burned through the morning mist.

We did several takes. Hidden inside the pool, just outside camera range, was a young man trawling a jerry-rigged simulacrum of a pool-cleaning device — just a rubber tube and a plastic disk bought at a hardware store the day before.

Early Wim Wenders, Godard, Bertolucci, and, for that deadpan, spellbound quality, Ozu and Bresson. I was stuck on these movies, these directors, and only later came to recognize the crucial, warm-blooded way that actors can move and breathe within the confines of a "transcendental" style.

We were living in L.A., Dee and I, having driven cross-country in a boat-like yellow Oldsmobile inherited from my grandmother in Kansas City. We were subletting the dim ground floor of a small house near the Hollywood Bowl, on a street whose name gave me considerable pleasure: Iris Circle.

Dennis Hopper was working for free, like everyone else, because he liked the script and had nothing better to do. He was gentle and generous and, in my memory, discernably vulnerable, having only recently extracted himself from a rehab center. He was intent on keeping busy, working as much and as often as possible. "I'm doing my own *laundry*," he said, with an air of astonishment and pride.

Lermontov's plot, characters, and themes lingered as a sort of jet trail in the haze of my own script, which attempted to translate 19th-century Russian elements into contemporary terms, bringing the story closer to home — that is, to my home. Lermontov's hero, a disillusioned cavalry officer, became a screenwriter self-consciously decked out in a Stetson and leather jacket; the captive Tartar princess morphed into a petulant valley girl; the avenging Tartar bandit (Hopper's role) degenerated into a trigger-happy record producer.

In this first scene Dennis is wearing jeans and a riotous yellow, red, and green Hawaiian shirt selected from his own wardrobe. (The shirt looks surprisingly sober in black-and-white.) He asked if he should keep his watch on. I thought about it for a second and said, "No, this guy is beyond time."

How to reconcile heroic ideals with the disconnectedness of contemporary life? How to override cynical assumptions in a world that routinely shuts out moments of true feeling? I was younger than Lermontov when he showed up for his fatal duel, but I felt the clock ticking, and presumed to think that Lermontov's demons were still in the air, close at hand.

Dee and I slept on the floor of the house where we shot most of the movie, surrounded by coiled cables, lengths of track, and the unblinking red eyes of camera batteries recharging for the next day's work. Whenever I think of the movie, I always think of this.

Purposely, perversely, I'd drained most everything exotic and dramatic out of Lermontov's story. The idea was to shape the movie out of moments of stillness and uncertainty. The opposite of an action movie. So it was essential that the images be weighted and radiant. Dee and I spent a good deal of time around our central location, taking photographs at different times of day — a degree of pre-planning I haven't matched on any subsequent movie.

"It's funny," Dennis said to me, more than once. "David [David Lynch] keeps saying 'More! More!' And you keep telling me: '*Less*.'"

I haven't seen the movie for over ten years, but I remember just about every frame. As noble/foolish impulses go, it was a nice try. But before we wrapped, and then decisively, during the editing, my feelings about it began to cloud over. It's an aggressively beautiful movie, luminously photographed (by Amir Mokri, who went on to shoot features for Kathryn Bigelow and John Schlesinger); but it's *merely* beautiful. The story had narrowed — I should've leaned more heavily on Lermontov — and I'd neglected my actors. The result was unexpectedly glossy, stilted, stillborn. An exercise in style.

Early on, Dennis tried to give me advice, for which I'll always be grateful. The two most important things in filmmaking, he told me, are timing and lighting. Then he corrected himself. "The two most important things in *life* are timing and lighting."

Dee checked our phone messages after that first day and learned that someone from Ed Pressman's office had called, explaining that Ed, being out of town, would prefer that we didn't shoot at his house that morning. (I think we laughed a lot at this.)

Cinematography. I've been asked to write about cinematography, but nothing I can think of holds a candle to Dennis' advice. Time and light, after all, create a circuit encompassing everything under the sun — everything you'd ever want in a movie, visible and invisible.

Besides, it'd be presumptuous for me to talk about cinematography. After fifteen years, I still feel like a beginner.

Dennis trie
to give me
advice.
The two m
important
things in
filmmaking,
he told me,
are timing
and lighting.
Then he
corrected
himself.
"The two most
important
things in
life are [illegible]
and [illegible]

STILLS FROM
HAPPY HERE AND NOW
(2001)
Courtesy IFC Keep Your Head Productions

HAPPY HERE AND NOW (2001)

Writer / Director: Michael Almereyda
Director of Photography: Jonathan Herron
Still photography: Aimée Toledano
Actors: Liane Balaban, Karl Geary, Ernie K-Doe

Michael Almereyda's forthcoming film *Happy Here and Now* is about a woman who comes to New Orleans to look for her sister. Almereyda's previous films include *Twister* (1988), *Another Girl, Another Planet* (1992), *Nadja* (1994), *The Rocking Horse Winner* (1997), and *Hamlet* (2000). His writing has appeared in *Harper's*, *The New York Times*, *The Village Voice*, and other publications.

Lance Acord on the set of *Adaptation*, photographed by Spike Jonze.

Interview: The Natural
SPIKE JONZE ON LANCE ACORD

ISSUE: How did you start working with Lance Acord?

Spike Jonze: Actually, I've worked with him on loads and loads of things, for the last seven years or so. Back around '93 we hung out a lot with Aaron Rose at the Alleged Gallery in New York — a little gallery on Ludlow Street. I heard about Lance from Aaron Rose and Dave Aron and those guys from the gallery. Lance was starting out doing music videos and commercials. I just met him, and always liked his stuff. Once we got to work together I loved working with him.

ISSUE: The lighting in *Being John Malkovich* was great — were you trying to suggest the different layers of reality through things like subtle changes in lighting?

SJ: Well, overall the idea was to ground in the photography and the art direction and acting, and to ground it in reality somewhat, which seemed more fun in terms of where we were going to go from there. Lance and K.K. [Barrett], our production designer, and I during pre-production worked a lot. K.K. and I shot a lot of locations in New York and people's office's and apartments and got characteristics for Craig [John Cusack] and Lotte's [Cameron Diaz] apartment and LesterCorp.

ISSUE: Were some of the challenges of shooting *Adaptation* similar to what you faced with *Being John Malkovich*?

SJ: There's no surreal or supernatural element to the story in *Adaptation*. I love the way Lance shoots, because everything has a sort of naturalness to it, but he usually does it with minimal lighting. He doesn't take hours and hours to do it, but it ends up being effective and appropriate for the scene, whether it's supposed to be nighttime in a bedroom, where a guy is lost in the mess of the room and his thoughts, trying to write, or maybe a swamp at predawn. Meryl Streep's in this movie and she made a great comment on the dailies. She said that it looked like "the reality of video but with the look of film."

ISSUE: Did you and Lance usually shoot on film even when you were working on the commercials and music videos?

SJ: Usually. I've done stuff on video — some of it was Lance and sometimes we'd mix film and video. There was the obvious use of video when you need it, like in *Malkovich* where we used it a lot for TV and documentary stuff that we inserted. I've also done documentaries and music videos on video in terms of doing small, low-budget stuff.

ISSUE: Did you use a lot of handheld camerawork again in *Adaptation*? That was done really well in *Being John Malkovich*.

SJ: Some, but nowhere near as much as in *Malkovich*. I haven't worked with that many DPs, but I imagine most great ones are like this — with the great ones I've worked with like Tim Maurice-Jones [who recently shot *Human Nature*, directed by Michel Gondry and produced by Jonze], the better the DP the more they're thinking about everything else in the picture. That's what makes Lance a great handheld operator. He's totally in the movie and

in the scene — feeling the scene and feeling the actors so he knows where to go with the camera. And it goes beyond just operating. He's always got my back in terms of keeping an eye on things, whether it's wardrobe, art direction, hair, or make-up; he's always got ideas or in preproduction he's talking about things, or he's on the set catching things before it's too late.

He's a photographer too — he takes a lot of pictures. He was an assistant for Bruce Weber and then starting shooting film for him. The way Weber shoots is very naturalistic and what Lance would shoot with Bruce would be very unlit and very naturalistic. He instinctively approaches things by using less as opposed to more.

ISSUE: What about your own photographs — are you still taking a lot of photos?

SJ: Yeah, I always have my Leica and try and take pictures of whatever's around.

ISSUE: Do you ever use that to get ideas for particular shots?

SJ: We do photo-storyboard a lot, which means as we're location scouting we take pictures. I'll have a Nikon with a bunch of lenses, and we'll take pictures of the locations so when we show up we've blocked out the shots a little more, and can be specific in terms of telling the art department what they need to worry about. Or if there are special effects in the preexisting location that we're going to go in and try to figure out how to do, we usually photo-storyboard that stuff.

ISSUE: What are some of the videos and commercials you've worked on with Lance?

SJ: He did the Björk video "It's so so quiet," and we did a bunch of commercials together. A Nike one where a guy wakes up and goes running on New Year's morning of 2000 and there are riots in the streets and giraffes running around. One of the first ones we did together is this commercial where Pete Sampras and Andre Agassi are playing tennis in the middle of the street. The last video we did before preproduction was for Fatboy Slim — with Christopher Walken dancing in a hotel lobby. The range of things Lance can do is amazing, even just in terms of what he's done with me, from that Nike commercial where it was very handheld and raw and pseudo-documentary-style, to the Björk video, where we set up stuff in a very precise way with camera moves that needed to execute something specific. [Vincent Gallo's] *Buffalo 66* also looks totally different from my movies, but I love the way it looks.

ISSUE: Do you ever come up with visual sources together — such as photographs or other movies? For example, with *Being John Malkovich*, did you ever look at a particular photographer's work and try to emulate that look in the movie?

SJ: Well, there was one time when Lance, Casey Storm (our costume designer), Catherine Keener, and I were meeting during preproduction and talking about wardrobe for the character Maxine. Lance brought in a bunch of Helmut Newton books for Keener. It was sort of an abstract reference, and I don't know how much in the end she used it, but she borrowed the books and found them helpful and interesting in terms of thinking of Maxine as a powerful woman — the way Helmut Newton photographs women. It's not the way we really shot her — she's not dressed that way, and she's not posing that way, but maybe somehow it came through.

ISSUE: Can you think of anything similar that he did while you were shooting *Adaptation*?

SJ: I can't think of anything specific right now, but, man, Lance does something like that every day.

Meryl Streep made a great comment on the dailies. She said it looked like the "reality of video but with the look of film."

"FALLING INTO THE CAMERA": FOUR CINEMATOGRAPHERS

JIM DENAULT

In 1997, *Village Voice* critic Amy Taubin wrote, "Jim Denault has been specializing in up-market, low-budget phantasmagoria." By then Denault had worked on a number of highly original independent features, beginning with Kelly Reichardt's *River of Grass* (1995), a poetically deadpan story of alienation and offhand violence set near the sun-bleached Florida Everglades. Films that followed included Michael Almereyda's black-and-white vampire tale *Nadja* (1996), which was partially shot with a Fisher-Price Pixelvision camera (*Nadja* was nominated for an IFP/West Independent Spirit award for Best Cinematography), Almereyda's druid-haunted psychodrama *The Eternal* (1999), and Nick Gomez's dreamy, smack-soaked morality tale *Illtown* (1996). For Kimberly Peirce's telling of the Brandon Teena tragedy, *Boys Don't Cry* (1999), Denault created a lush, bruised yet glittering nocturnal palette. He recently took a very different approach while photographing Jim McKay's acclaimed vérité-style fiction feature *Our Song* (2000), using only a handheld camera and tripod. Shorts Denault has worked on include Michael Almereyda's *Another Girl, Another Planet* (which was filmed entirely in Pixelvision), Hal Hartley's *The Book of Life* (1998), and Su Friedrich's *Hide and Seek* (1996).

Since Denault studied photography as a fine-arts major before becoming a cinematographer, it's not surprising that he sometimes uses still photographs as source material while shooting. After the release of *Boys Don't Cry*, he remarked to an interviewer that he and Peirce had looked at images by Nan Goldin and Jeff Brouws for inspiration; he also had in mind "Robert Frank's photos, the way he uses figures in the frame and his attention to setting," and for certain sequences he drew on Jan Staller's and Michael Kenna's nighttime scenes of industrial sites. While working on *Our Song*, on the other hand, Denault and McKay, who have said that they were striving for a look that was "gorgeous in its realness," considered such films as Jean and Luc Dardenne's *La Promesse*, Erick Zonca's *The Dreamlife of Angels*, and Frederick Wiseman's *Public Housing*.

ROBBY MÜLLER

Though he may be an *éminence grise* among cinematographers, Robby Müller's work feels as youthful as it is accomplished. A native Dutchman, he grew up in Indonesia, before as a young man shooting *Alabama: 2000 Light Years* (1969), the first feature by Wim Wenders, a director whose work has had an enormous impact on American independent filmmakers. Müller has since been director of photography on almost all of Wenders' subsequent films, creating a look consistent with the director's distanced, poetic style. In 1996 he welcomed the considerable challenge of shooting

This page, top to bottom: Kelly Reichardt, *River of Grass*, 1995. Larry Fessenden and Lisa Bowman. Director of photography Jim Denault. Jim Jarmusch, *Dead Man*, 1995. Robert Mitchum. Director of photography Robby Müller.

Next spread, left to right: Ed Harris, *Pollock*, 2000. Amy Madigan. Director of photography Lisa Rinzler. Larry Clark and Ed Lachman, *Ken Park*. 2001. James Ransone. Director of photography Ed Lachman.

BELOW WE'VE LISTED A SELECTION OF ADDITIONAL CINEMATOGRAPHERS WHO HAVE DONE REMARKABLE WORK IN THE U.S. IN RECENT YEARS, ALONG WITH TITLES OF SOME OF THE FILMS THEY'VE WORKED ON.

Lance Acord
Gentle Giants (Bruce Weber); *Buffalo 66* (Vincent Gallo); *Being John Malkovich*; *Adaptation* (Spike Jonze)

Maryse Alberti
Poison; *Velvet Goldmine* (Todd Haynes); *Crumb* (Terry Zwigoff); *Tape* (Richard Linklater)

Michael Balhaus
Baby, It's You (John Sayles); *The Last Temptation of Christ*; *GoodFellas*; *The Age of Innocence*; *Gangs of New York* (Martin Scorsese)

John de Borman
Hamlet (Michael Almereyda)

Jeff Cronenweth
Fight Club (David Fincher)

Roger Deakins
Dead Man Walking (Tim Robbins); *Barton Fink*; *Fargo*; *The Big Lebowski*; *O Brother, Where Art Thou* (Joel and Ethan Coen); *Kundun* (Martin Scorsese)

Peter Deming
Lost Highway; *Mulholland Drive* (David Lynch)

Ernest R. Dickerson
School Daze; *Do the Right Thing*; *Mo' Better Blues*; *Jungle Fever*; *Malcolm X* (Spike Lee)

Eric Alan Edwards
My Own Private Idaho; *Even Cowgirls Get the Blues*; *To Die For* (Gus van Sant); *Kids*; *Another Day in Paradise* (Larry Clark)

largely outdoors with freewheeling camerawork in widescreen Super 35mm (which was transferred to digital video, then back to film) for Lars von Trier's fire-and-brimstone love story *Breaking the Waves*. On his next project for Von Trier, the gritty musical *Dancer in the Dark* (2000), he filmed in handheld widescreen DV, using even looser camerawork.

Films Müller has worked on in the United States include Jim McNaughton's *Mad Dog and Glory* (1993) and Barbet Schroeder's *Barfly* (1987), but his most notable stateside collaboration has been with visionary maverick Jim Jarmusch. To date he's shot four Jarmusch features: the Memphis-pilgrimage story the director calls a "minimalist Canterbury Tales," *Mystery Train* (1989); the black-and-white New Orleans–set hipster fairy tale *Down by Law* (1986); the metaphysical revisionist western *Dead Man* (1995); and the hip-hop-scored Zen ballad *Ghost Dog: The Way of the Samurai* (1999). Each project has had its own distinct look — in *Ghost Dog*, for example, he used deep focus and a luminous palette with lush blues, blacks, and reds. Of Müller's work on the starkly ravishing *Dead Man*, which is as richly detailed as a daguerreotype, Jarmusch has remarked, "Robby, as always, did amazing work photographing *Dead Man*, and working with the negative to include all possible gray tones while keeping the black and whites very strong, almost as though color film hadn't been invented yet." Müller also has an impeccable sense of framing, and, in the words of the English director Sally Potter, "a completely unsentimental, unglossy way of lighting and shooting."

LISA RINZLER

In 1999, Lisa Rinzler was showered with attention in the indie community when she won the Best Cinematography award at Sundance and the IFP Independent Spirit Award for her work on Tony Bui's quartet of interwoven stories set in Vietnam, *Three Seasons*. Her crisp, lyrical photography became the soul of Bui's movie, which otherwise suffered from a cloying script. She had already earned film-world cred for shooting such varied projects as Tamra Davis' *Gun Crazy* (1992), Wim Wenders' *Lisbon Story* (1994), Nancy Savoca's *True Love* (1997), Steve Buscemi's *Trees Lounge* (1996), and the Hughes brothers' *Menace II Society* (1993) and *Dead Presidents* (1995). When Rinzler recently photographed Ed Harris' *Pollock* (2000), she suggested the artist's most disoriented moments through woozy camerawork and captured his affinity for the natural world through her sensitive rendering of the Long Island landscape.

Like many DPs, Rinzler began by pursuing a love of art — she studied painting before entering a film program at N.Y.U. She shot shorts and music videos, then began landing assignments on feature films. She has said that she looks for opportunities to experiment, once remarking to an interviewer, "I would be very displeased with myself if I fell into doing just one genre. The excitement is to work on different projects and figure out new approaches to each script." Although it rarely calls attention to itself, her work is always distinguished by its elegant framing and fluid camera movement.

ED LACHMAN

Renowned DP Ed Lachman wasn't originally headed for a career in film, despite having grown up around it (his father owned a chain of movie theaters and was a distributor of arc carbons and zeon bulbs for projectors). He began by studying painting, then while he was taking a "gut course in film-appreciation at Harvard" grew interested in how images are created to tell stories. When he started making his own movies, other filmmakers liked his work and asked him to shoot for them. As he vividly describes the roots of his intimate relationship with photography, "I always made my own films along the way, but then I fell into the camera." Since then he has worked with directors that include Werner Herzog, Wim Wenders, Rainer Werner Fassbinder, Jean-Luc Godard, Dennis Hopper, Paul Schrader, and Steven Soderbergh.

When not working as a cinematographer, Lachman has taken still photographs and directed narrative films, documentaries, and commercials. He's also made experimental works that he calls "imagistic films, films that are just held together through images." One memorable project was a photo-novella that was published in France with an introduction by famed author Alain Robbe-Grillet. "I created a film out of stills like Chris Marker's *La Jetée*," Lachman explains, "but I used the form of a *photo-roman*. I used locations, real actors, all in stills. It was shot in New York, Boston, and Haiti. Robbe-Grillet was interested because he said I 'created a film that didn't exist.'"

Frederick Elmes
River's Edge (Tim Hunter); *Eraserhead*; *Blue Velvet*; *Wild at Heart* (David Lynch); *Coffee and Cigarettes III*; *Night on Earth* (Jim Jarmusch); *The Ice Storm*; *Ride with the Devil*; *Chosen* (Ang Lee)

Jean-Yves Escoffier
Gummo (Harmony Korine); *Good Will Hunting* (Gus Van Sant)

Freddie Francis
The Elephant Man; *Dune*; *The Straight Story* (David Lynch); *Cape Fear* (Martin Scorsese)

Jonathan Herron
Happy Here and Now (Michael Almereyda)

Arthur Jafa
Daughters of the Dust (Julie Dash); *Crooklyn* (Spike Lee)

Ken Kelsch
The Driller Killer; *Bad Lieutenant*; *The Addiction*; *The Funeral*; *Dangerous Game*; *New Rose Hotel*; *R-Xmas* (Abel Ferrara)

Darius Khondji
Alien: Resurrection (Jean-Pierre Jeunet); *Se7en* (David Fincher)

Ellen Kuras
Swoon (Tom Kalin); *Angela* (Rebecca Miller); *I Shot Andy Warhol* (Mary Harron); *Unzipped* (Douglas Keeve); *4 Little Girls*; *Summer of Sam*; *Bamboozled* (Spike Lee); *Blow* (Ted Demme)

Teodoro Maniaci
Luminous Motion (Bette Gordon); *Clean, Shaven*; *Claire Dolan* (Lodge Kerrigan)

Anthony Dodd Mantle
Julien Donkey-Boy (Harmony Korine)

Amir Mokri
A Hero of Our Time (Michael Almereyda); *Eat a Bowl of Tea*; *Life Is Cheap ... But Toilet Paper Is Expensive*; *The Joy Luck Club* (Wayne Wang); *Pacific Heights*; *Eye for an Eye* (John Schlesinger)

Alex Nepomniaschy
Poltergeist III (Gary Sherman); *Safe* (Todd Haynes)

Bill Pope
Darkman (Sam Raimi); *The Matrix* (Andy and Larry Wachinski)

Robert Richardson
Casino; *Bringing Out the Dead* (Martin Scorsese); *Fast, Cheap, and Out of Control* (Errol Morris); *Snow Falling on Cedars* (Scott Hicks)

Paul Sarossy
Affliction (Paul Schrader); *Speaking Parts*; *Exotica*; *The Sweet Hereafter*; *Felicia's Journey* (Atom Egoyan)

Rob Sweeney
Color of a Brisk and Leaping Day; *The Sleepy Time Gal* (Christopher Münch)

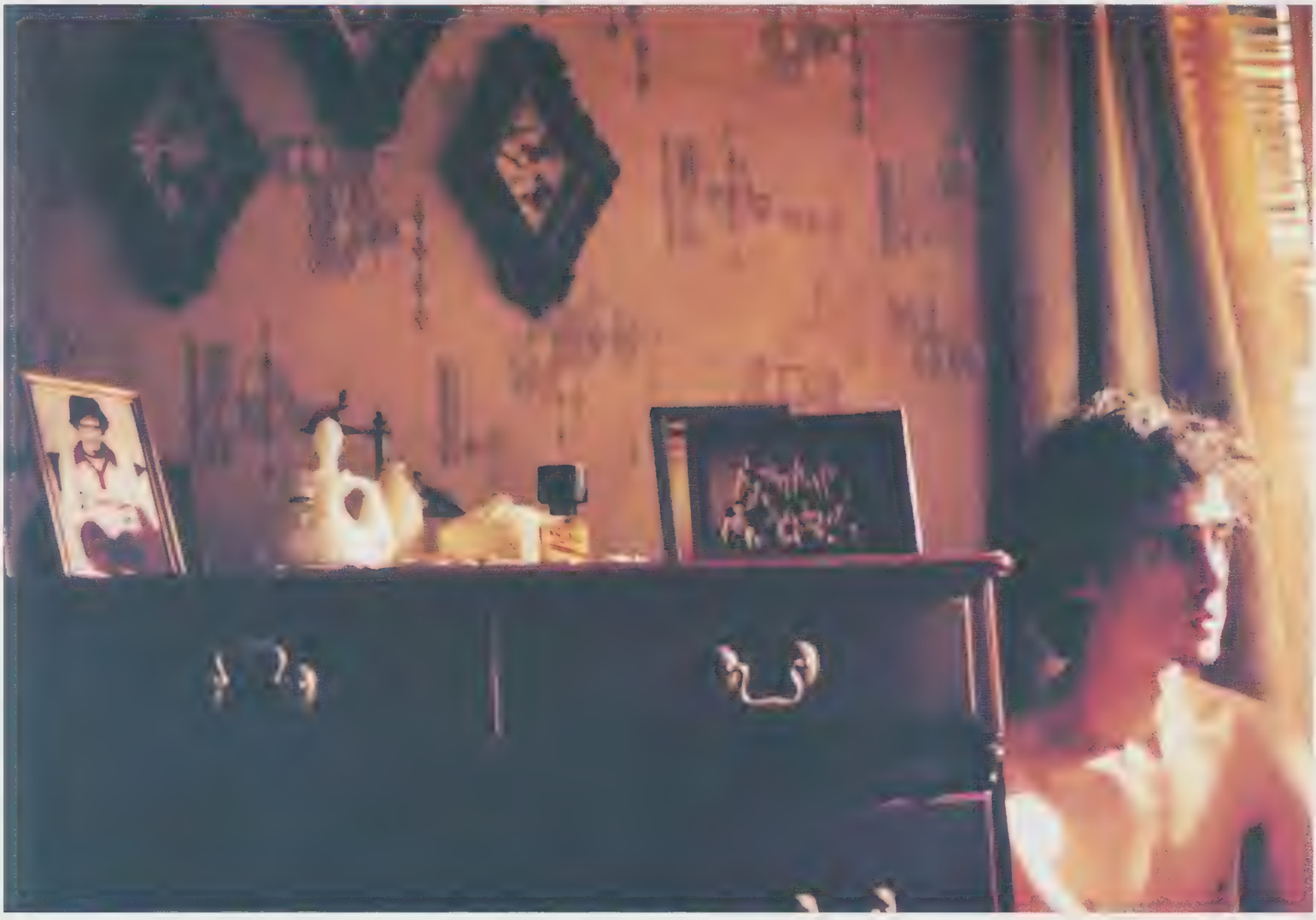
Ed Talavera
Sue; *Fiona* (Amos Kollek)

Amy Vincent
Eve's Bayou; *The Caveman's Valentine*; *Dr. Hugo* (Kasi Lemmons)

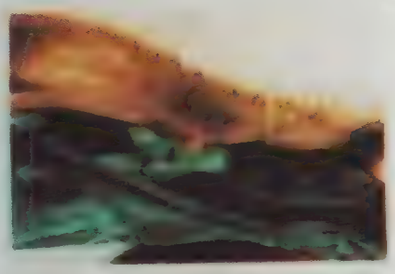
Lachman often approaches projects by looking at work by painters or photographers (photographic influences include Robert Frank, Louis Faurer, Larry Clark, and William Eggleston) or "something that's emblematic about the story." For Sofia Coppola's *The Virgin Suicides* (1999), for example, he thought about "'70s iconographic imagery and how people saw themselves in the '70s through their own symbols and metaphors." While shooting David Byrne's *True Stories* (1986), he had in mind William Eggleston's work and "the snapshot world of a Fotomat." He recalls, "I went to Fotomat and just looked at photographs as they came out on a conveyor belt. I thought, why not photograph America the way America photographs itself? I always thought it could make a really interesting film if you could set up a camera as film gets fed out of a film processor — that you'd have an interesting conceptual film."

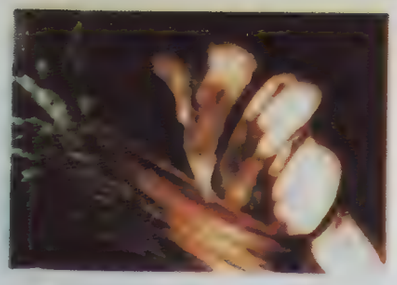
Not least of all, Lachman is a master of tinted light. In Stacey Cochran's *My New Gun* (1992), a film about a doctor's wife trapped in suburbia like a butterfly in amber, outdoor daytime scenes are washed in a warm glow that contrasts with the banality the heroine wants to escape. More recently, he used color to intensify the fractured quality in Steven Soderbergh's time-shifting story of a haunted man bent on revenge, *The Limey* (1999). He brought a sense of vitality and urgency to Soderbergh's *Erin Brockovich* (2000), working quickly on location using colored gels and mostly natural light. And for Coppola's moodily impressionistic Jeffrey Eugenides adaptation *The Virgin Suicides*, he created a radiant palette of gauzy pastels. Color has been a source of fascination for him from the start: "I was really interested in German Expressionist painting. And I thought, why couldn't you do that with film? People think film is a representational art, so why couldn't you make it an abstraction? Why couldn't it be expressionistic rather than naturalistic? The things I understood about receding/advancing, depth, the way primary color works against subtractive — all the things you learn in art school — I didn't see any reason why you couldn't apply that to photography."

He recently returned to directing with the forthcoming film *Ken Park*, which he codirected with Larry Clark from a script by Harmony Korine. Asked to describe the story, which is set in a small community between Bakersfield and Fresno, Lachman says, "If *Kids* was a look into the kids' world, this is a look into the parents' world through the kids." His next directing project will be another narrative film, one that takes place during the early years of the Beat period. Of his approach to cinematic narrative Lachman stresses, "I don't think images should just be homogenized, perfectly framed, pretty little pictures. I'm always interested in how images convey the context of a story — how you find the thematic of the story through the images."

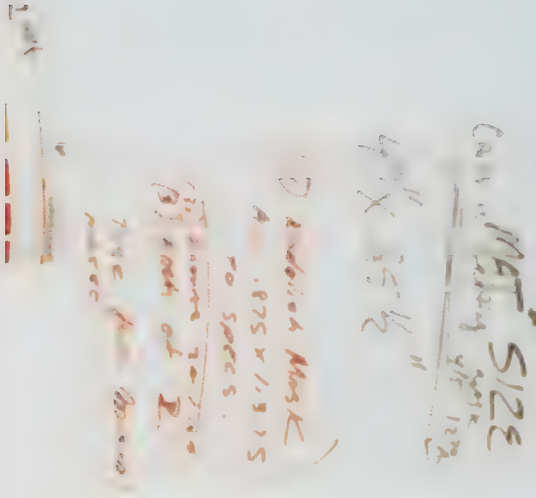


Studio, NY, 2001





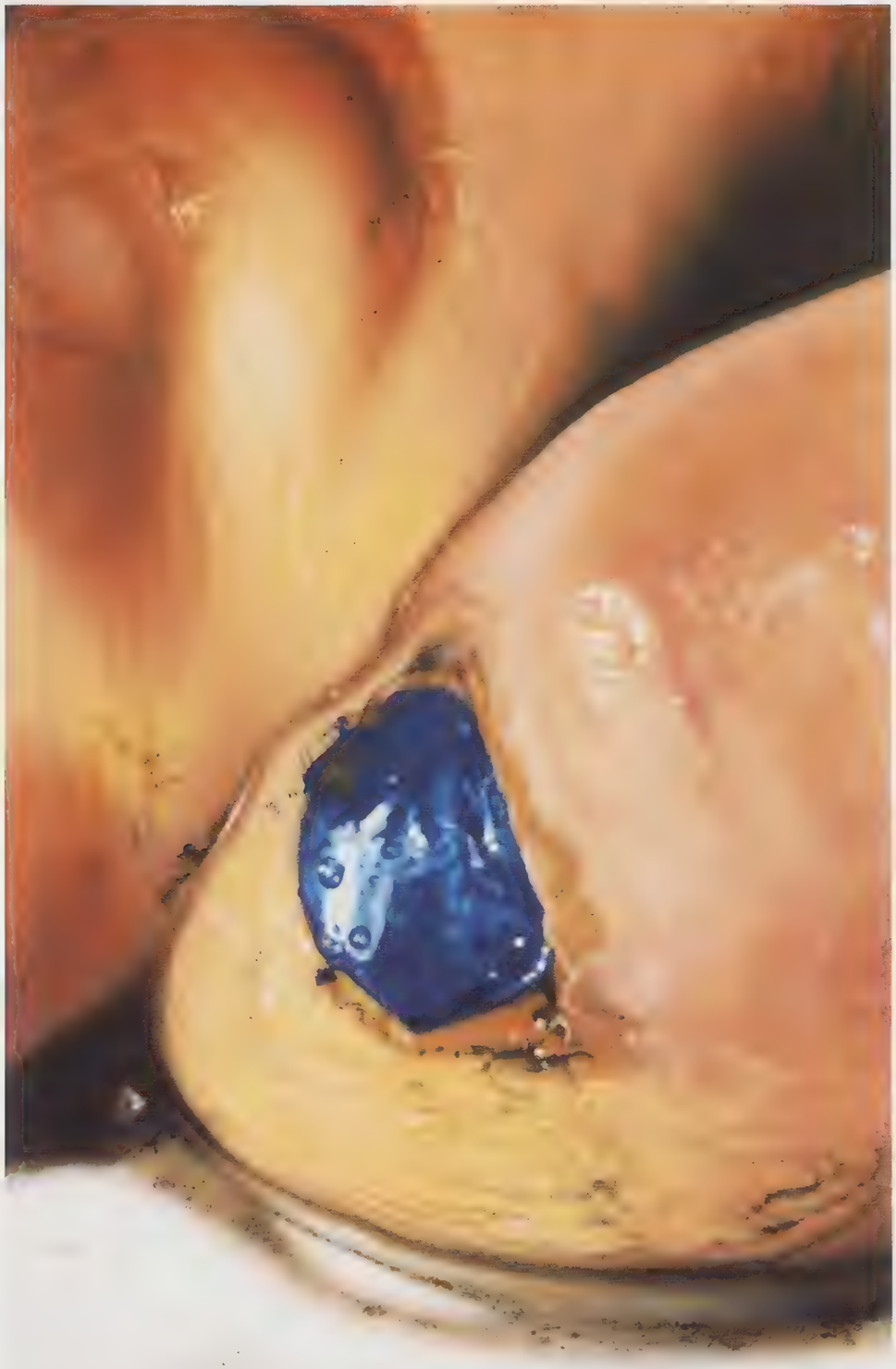
MARILYN MINTER



The first time I ever saw a Marilyn Minter painting I found myself looking directly into the heart of an artichoke. The image was wildly erotic. It was hanging with a sliced-open hot red pepper and a leggy bunch of carrots, among other seemingly unassuming vegetables. I heard nervous laughter all around. Over the years, I have found this to be a common response to Minter's discomfiting imagery. Her fingerpainted, atomizing close-ups of human facial tics — painted lips, cracked and puckered; shadowed eyes set off by tears hardened into sequins; smooth chins betrayed by errant hairs — have repeatedly, even lovingly, zeroed in on the sort of cosmetic touches that only betray one's stubbly, smelly, needy self. Her pictures are cracks in the unblemished mirror of fashion, their super-real gloss exposing the fallacy of wearing a mask while exploiting its utter necessity. Minter knows the condition of being human does not permit perfection. Vulnerability is what determines glamour, which is her true subject. You can see that here.

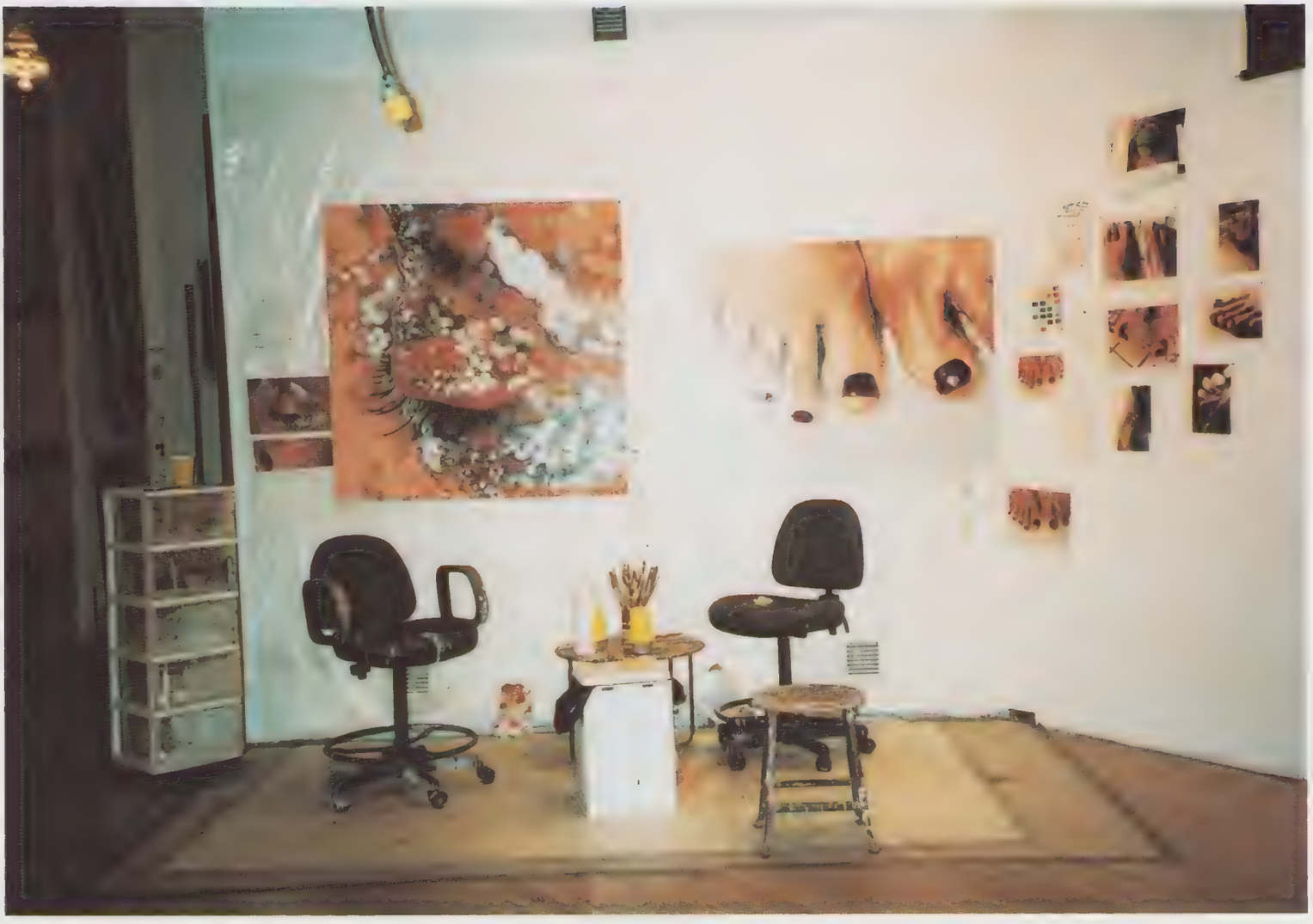
In a Minter, you find doubt doing battle with pleasure; you watch envy take satisfaction in disgust. Is this not the essence of glamour? Here is its pose in a drag queen's exaggerated make-up, in black lace on a hairy chest, in the dirt gathered under a painted toenail. To look at these pictures is to look in a mirror — our most unavoidable act. Try to ignore one as you pass it. Bet you can't. The narcissistic impulse slays every tempering dragon in its path. See how you appear to others; match what you see to what you believe is there. Is it sexy? Is it pretty? Is it real? Minter seeks out these moments of self-scrutiny, at once so tantalizing and cruel, knowing you can never see the whole picture, only its parts. In her paintings, she works not from the looking glass but from inside the psyche, abstracting a better sense of the whole: enlarged pores become fractal fields of glitter; a forked tongue, an instrument of beauty. Things don't have to be beautiful to be interesting, she says. But they do have to be interesting to be beautiful. In Minter, things get pretty interesting. That's what makes them sexy. That's how they get real.

— Linda Yablonsky



Stub.
enamel on meta
38 x 48
2001

Parched.
enamel on metal.
36 x 48".
1999



Studio, NY, 2001

Above:
Painting in progress.
enamel on metal.
48 x 48".
2001

Left:
Misty
photograph.
35½ x 40".
2001

Armorous.
enamel on metal.
38 x 48".
2001

MUSIC FOR IMAGES

John Wolfington

The New York City–based musician and art director John Wolfington was born in Cali, Colombia, and raised in the southern Maryland. He took the following pictures while he was performing in Europe to promote his first album, which was released in January of 2001 by Smells Like Records, a label owned and operated by Sonic Youth's Steve Shelley. Since Wolfington doesn't have his own band, unless he's performing live, he plays all the instruments himself in a laborious process that he describes as "sort of a solitary kind of expression, maybe something similar to painting." Whereas his first album had a wide range of production styles, he intended the three separate pieces within the music he composed for ISSUE to flow together as a whole, like a movie score. He usually "gets a visual" in his head while he's listening to music, but this time he worked the other way around, creating a three part soundtrack inspired by the shots (and for the first time directly combining his interest in the aural and the visual). "I see it as creating a mood," he says, "and trying to capture the mood from the time I was having the experience that I talk about in the song." He suggests flipping through the images, following the time references, while listening to the CD, to get an impression of the genesis of his music.

00:00 04:40

04:40 08:56

FRANCINE

I WANNA TELL YOU A STORY
ABOUT A GIRL NAMED FRANCINE
TELEVISIONS OF GLORY
IN A ROOM DOWN BY THE SEA

SOMETHING IN HER EYES
TELLS ME SHE'S THE ONE
WHO MAKES YOUR
DREAMS COME TRUE

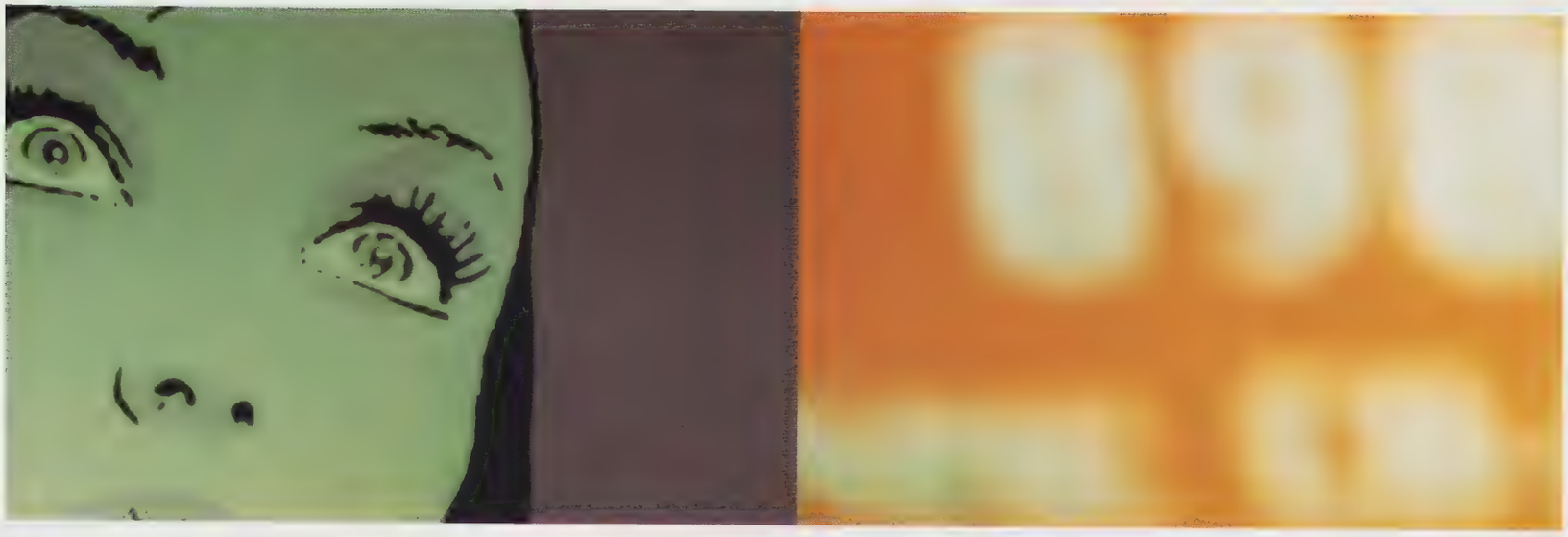
SOMETHING IN HER EYES
TELLS ME SHE'S THE ONE
WHO'LL MAKE ME FEEL
LIKE YOU

SHE WANTS TO SELL YOU A STORY
ABOUT A LOVE YOU CAN'T FEEL
TELEVISIONS ARE BORING
IN A ROOM DOWN BY THE SEA

SOMETHING IN HER EYES
TELLS ME SHE'S THE ONE
WHO'LL MAKE ME FEEL
LIKE YOU

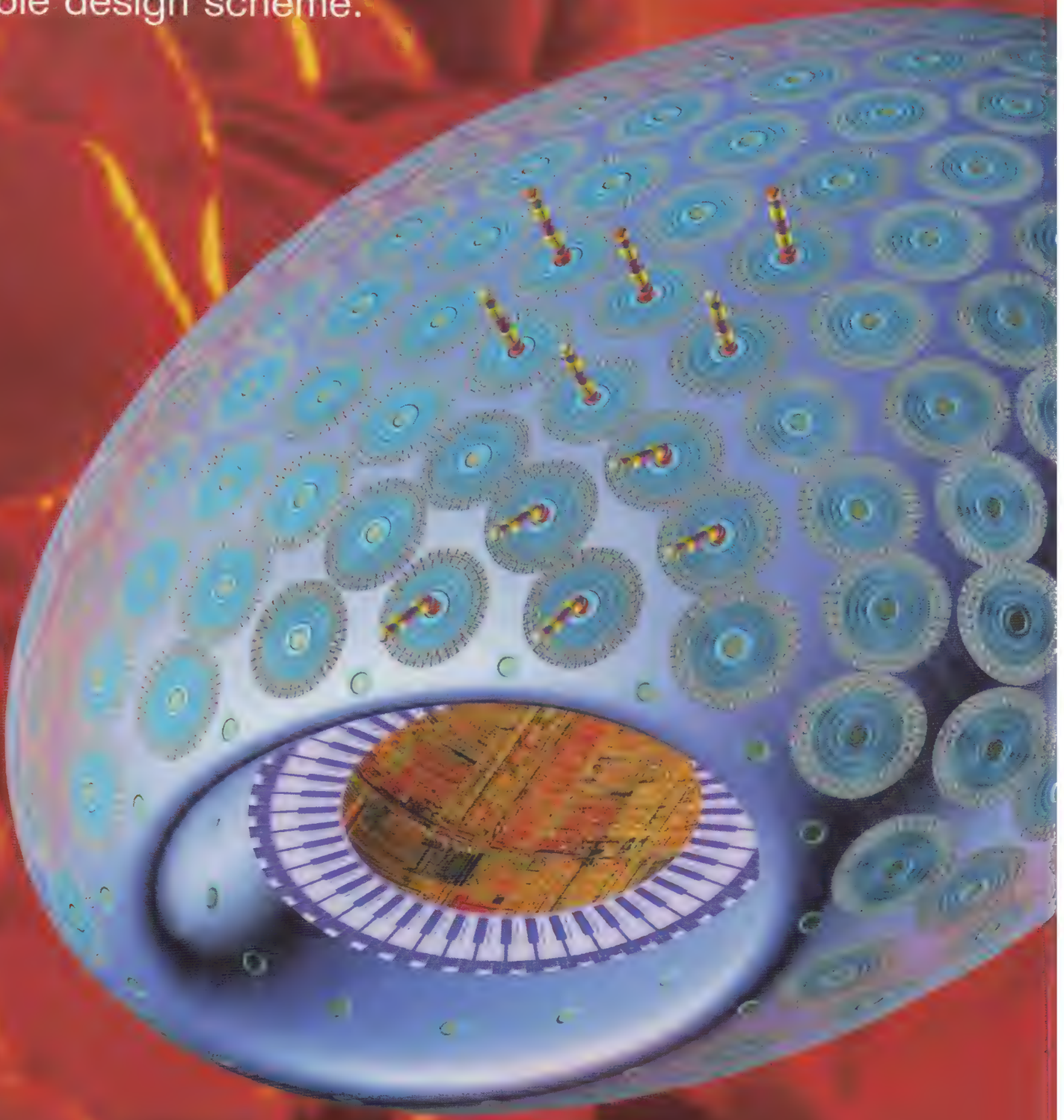
MAKE ME FEEL LIKE YOU
MAKE ME FEEL LIKE YOU
MAKE ME FEEL LIKE YOU
MAKE ME FEEL LIKE YOU

08:56 END



The MICROBIVORE, at 3.4 MICRONS,

pushes the boundaries of a technically feasible design scheme.



Advances in nano-scale engineering sciences have made it possible to design remarkably detailed mechanical devices, some of which can move freely through the bloodstream.

An ARTIFICIAL MECHANICAL PHAGOCYTE using Digest and Discharge Protocol is the name that was given to the model opposite by Robert A. Freitas, its designer, at a cutting-edge nanotechnology research corporation in Texas.

By design, a fully functioning phagocyte, or Microbivore, will destroy a variety of microbiological pathogens found in the human bloodstream. The Microbivore is the equivalent of a major class of natural blood cells — the white cells. Their antimicrobial defenses include circulating white cells capable of phagocytosis (engulfing and digesting other cells). The device may consume up to 200pW of continuous power while completely digesting trapped microbes at a maximum throughput of 2 micron3 of organic material per 30-second cycle. Microbivores are up to 1000 times faster-acting than either natural or antibiotic-assisted biological phagocyte defenses.

In this age of computer-assisted design, the process of developing a fully functioning, artificial-white-blood-cell model necessarily exploits digital rendering as a design component. The conceptual and technical design was first thoroughly analyzed on paper, while every imaginable angle was considered, including biomedical requirements and nanotechnological possibilities. The rendering phase of the project was undertaken by Forrest Bishop, Chairman of the Institute of Atomic-Scale Engineering.

Freitas conceived the Microbivore and specified the masses, volumes, and areas of the unit. Bishop designed the production model, which is composed of about one million distinct molecular machine elements in operation on the surface of the unit. The model pictured opposite is part of an animation sequence Bishop developed, which shows each of the approximately 300 robot arms as individually, and collectively, controllable. The arms emerge from behind irising doors set into the hull, and hand off virus-size or larger particles from one to the next. The 86,000 power and exhaust rotors can be seen rotating and twinkling in the animated version.

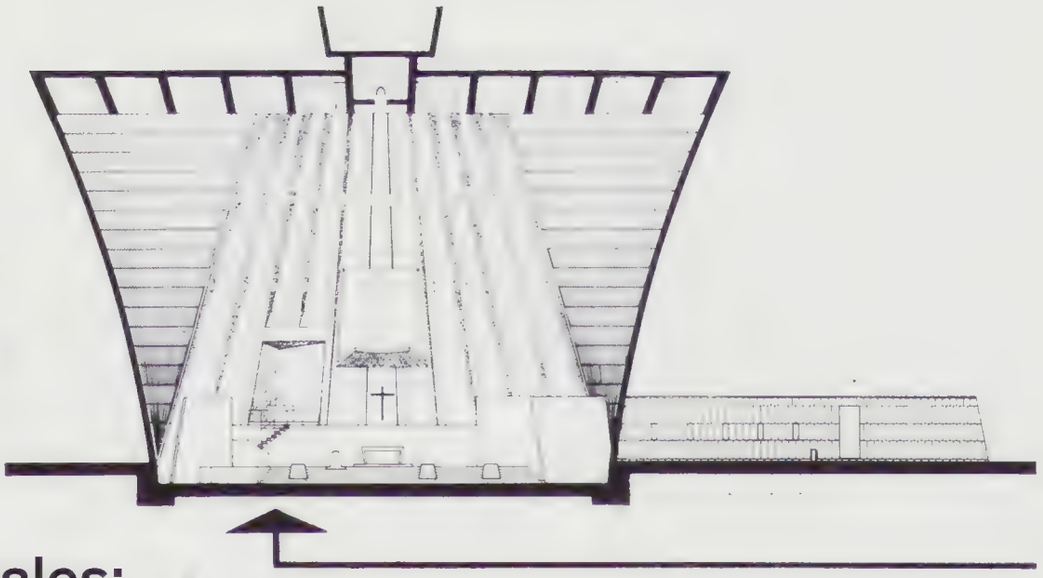
— Dennis Balk

The Microbivore was designed-engineered by Robert A. Frietas, Research Scientist at Zyvex Corporation.

The digital model was constructed by Forrest Bishop, Institute of Atomic-Scale Engineering.

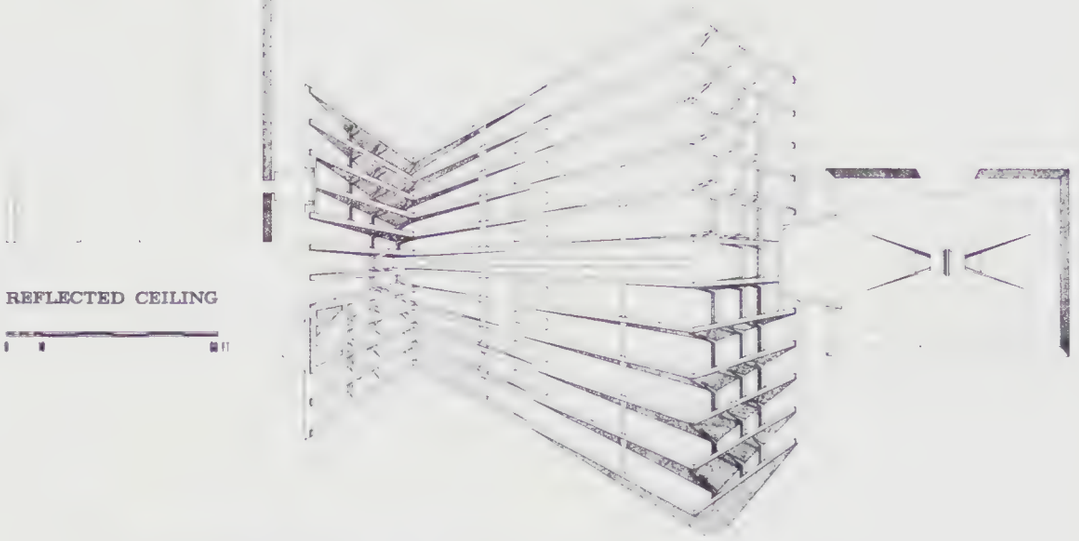
Model courtesy of Forrest Bishop.

FAITH and FORM



St. Francis de Sales: Marcel Breuer's Temple to Form

Designed by Breuer and Herbert Beckhard for a small Michigan parish, St. Francis is perhaps the least known of the master builder's projects, but certainly one of his most intriguing.



Above: Details from the original presentation book given to the parish in 1963 by Marcel Breuer and Associates before construction began. The details are of a rear cut-away (above) and reflected ceiling plan (below).

Left: St. Francis under construction in 1964. The contractor (now The Lombard Company of Chicago) still considers it their toughest assignment and greatest achievement. The construction remains a subject of discussion in Muskegon today.

The dramatic facade of St. Francis absorbs the light of the rising sun and projects the sounds of the bells perched above.

A TENT THAT EMBRACES ALL

By Reverend Thomas Simons

Since 1948 a community of Catholic believers has gathered in Muskegon on the eastern coast of Lake Michigan for worship and witness, for formation in the gospel and outreach in service. In 1966, with Marcel Breuer as the architect, this community received a building that has come to be known internationally for its dramatic style and captivating vision. Like churches constructed in the Middle Ages, it is large and imposing, but its style embraces the architectural spirit the modernist era of the 1960s and new liturgical interpretaions and reforms allowed by the Second Vatican Council.

The parishioners of St. Francis are aware of the significance and symbolism of their church building. It is a place of encounter with the divine and a place of relationship with God and God's people. This place has the ability to move people of all kinds: rich and poor, highly and simply educated, strong and questioning in faith, liberal and conservative. That is Breuer's achievement: a tent that embraces all, a net that gathers all. While always being sensitive to the original integrity and character of the architecture, St. Francis must also respond to the same yet ever-changing needs of new people, new needs, and new times. It is a living building of, today and not an inanimate architectural monument of the past.

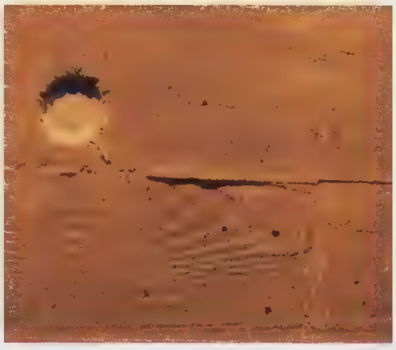
In that sense, St. Francis, although sculpted out of concrete, is an organic building. In its larger sense, it is the people who make this temple of form into a true temple of God.

One can not escape the imposing presence of the building in this humble neighborhood. Its banner and central cross project the sounds of the bells ringing out, calling to the faithful as a place where Christians gather. While people can worship anywhere, places that are welcoming and spiritually engaging are needed as a setting for the extraordinary moments of life to take place. The building itself becomes a testament and a witness to the faith. The baldachin glows when we celebrate the new life of Baptism. The choir and pulpit sing when we gather for Eucharist celebration. The vaults dance when marriage and ministry are affirmed and embrace us when homecoming is celebrated in death. Lasting spiritual memories are shared here, enlivened and recorded by the physical structure.

St. Francis offers the vision of an architect who was called upon to create a sacred space for a community of faith. The people have made it their own, shaped it with their memories, and enliven it with their worship. May St. Francis be such a church for many years and generations to come.

Left: Sunlight echoes between the freestanding balcony and the front supporting ribs. The cantilevered balcony touched no walls and floats above the congregation.

Below: Detail of the interior concrete walls of the baptistry, made from rough-form pine boards. The textures translated from the natural wood to the man-made concrete offer warmth and familiarity.



FORM FOLLOWING FUNCTION

By Herbert Beckhard

Aside from the Whitney Museum in New York, St. Francis de Sales was one of the isolated instances where Marcel Breuer allowed a predetermined form to lead the way in the design of a project. Breuer was fascinated at the time by the hyperbolic paraboloid geometric form, which he incorporated into various built and unbuilt projects. The Hunter College Library in New York City (1955–59) was among those built while the Tanaguarena Resort Apartments in Tanaguarena, Venezuela (1958), was unrealized. Attracted by the form's dynamic geometry, Breuer correctly predicted that unique idea of placing a hyperbolic paraboloid vertically would result in an interesting and dramatic space.

At St. Francis de Sales, the hyperbolic paraboloid walls are purely enclosing and bracing elements, not supporting any weight but their own. The supporting structure consists of front and rear bearing walls sloped inward, the pilasters of which are connected with a beam system forming rigid arches. The horizontal kick-out force is resolved by tying the low points of the bracing walls together with the floor slab of the building.

Constructing the church was not a simple undertaking. The contractor, Michael Lombard (a highly regarded Chicago builder) was selected through the competitive bidding process. He had never been involved in a project even remotely similar to this. His personal dedication to the project was certainly not based on profit. He was driven by both his interest in doing something difficult utilizing poured reinforced concrete and his strong devotion to the Catholic faith. The project required unusually high levels of skill in the carpentry of formwork and the handling and placement of concrete.

The original design intent was to face the front and rear surfaces with limestone. For economic reasons, that was changed to architectural concrete involving the exposure of joints and varying wood grain textures. Pouring the bracing (hyperbolic paraboloid) sidewalls was particularly difficult since it involved surfaces leaning in, leaning out and standing vertically only at their midpoints in plan. The curved forms consist exclusively of straight line segments in only four-foot vertical increments. The horizontal dimension of each four-foot course varies from course to course from ground to roof. It was challenging to devise a form system that would compensate for these dimensional differences in a direct and simple manner while avoiding an exercise in complex cabinetwork and preventing the concrete from leaking through the forms when it was poured. It was these pragmatic considerations that led to the aesthetics of the "board and batten" texture of the sidewalls.

During the concrete's pouring and curing, the entire structure was supported by a forest of 6-x-6-inch wood posts and braces. It was a momentous occasion when they were cut away — somewhat frightening, at least for me. However, none of the complex concrete structure deflected, or moved, in the least when the bracing was removed.

In addition to the low building elements of the complex, baptistry, and rectory, the principal elements are a concrete trough at roof level and a freestanding balcony. The trough projects the bells beyond the edge of the main facade, allowing them to be visible from below, which is especially dramatic when the bells are in action. Furthermore, the trough contains part of the mechanical equipment for heating and ventilating, and allows access to the main overhead lighting elements serving the monumental interior space.

The balcony, which allows 300 of the 1,200 parishioners to move closer to the sanctuary, is a daring structure in its own right. Not connected to

Left: Interior facing the altar as it looked in 1967. The forced perspective of the ribs makes the chuch appear taller in the front than the back, when the opposite is true. The twisting concrete piers visually sway as one moves from one side of the nave to the other, as if the entire church were going to tip over.

Above: Sketch of the niche holding the tabernacle, from the presentation book of 1963.

any of the church's walls, the freestanding balcony is totally independent structurally. The balcony is projected over floor-level seating by means of a cantilever, allowing the supporting columns to be placed where they don't block views.

The efforts of the structural engineer, Mattys Levy, a partner in the world-renowned firm of Weidlinger Associates of New York, were crucial to the project's realization. Among his many contributions to the project was the cost-saving elimination of the use of piles for the foundation. At his suggestion, water was pumped into the soil to change its load-bearing characteristics. Evidently this was successful as there have been no settlement issues in the over thirty years since the church was completed.

It is notable that not everything was completed at the outset. Originally, there was only a bare floor and folding chairs. The brick floors and stained oak pews resulted from a fund drive among the parish members after the completion of the church. By that time, the parish had caught the spirit. The pews, as well as the liturgical furnishings of the sanctuary, were designed by the architects.

In retrospect, it borders upon the miraculous that this church was built in Muskegon, Michigan, a far from affluent community. It required much resolve and downright toughness of spirit. The pastor, Father Louis LaPres, was unshakable in his commitment and dedication to building a fine church for his parish. People on the building committee, always open-minded and supportive, certainly got into the spirit of things as well. St. Francis de Sales is an example of great architecture resulting from the absolutely necessary combination of talented architects and good clients.

Following Roger L. Seifert, Herbert Beckhard and engineer Edward de Fries Reichart established Herbert Beckhard Frank Richlan Associates in 1962. Their addition to St. Francis de Sales Church, a chapel and classroom, was completed in 1967.

RECREATION

Mitch Epstein

These pictures, made in the seventies and eighties, offer a window onto the breadth of Mitch Epstein's career. Many of these photographs are previously unpublished—culled from a body of work that goes back thirty years.

Ordinary things here startle, while the extraordinary appears at perfect ease in the world. Teenage girls abandon a baby to fondle a snake; children sleep ass to the wind on a car in an open campground. People stake their private ground in public. They are inside out, if only for a moment—during which Epstein's camera engages with their intimacy.

Gesture gives many of these pictures their pulse. Tender hand, strained shoulder, swiveled hip. It isn't the fact of 13-year-olds smoking that shocks, but the grace and knowledge in the young fingers that hold the cigarettes. From gesture to story: one turned head holds mysterious meanings, infinite stories.

Epstein is no judge. He photographs with a sharp, ironic wit, yet his wit belies compassion. When he photographs the rituals of American leisure, he relays, all at once, boredom and beauty, alienation and possibility.

— *Susan Bell*

Cocoa Beach, Florida 1983

Central Park, New York, 1974

Pensacola Air Force Base, Florida, 1986

California, 1974

Bridge City, Louisiana, 1984

Menemsha, Martha's Vineyard. 1988

Cross Creek, Florida, 1983

Cedar Key, Florida, 1983

Oak Bluffs, Martha's Vineyard, 1983

Miami Beach, Florida, 1976

Santa Monica. California. 1974

Cedar Key, Florida, 1986

Epstein's pictures are in numerous major museum collections, including the Metropolitan Museum, the Museum of Modern Art, and the Whitney Museum of American Art in New York, and the J. Paul Getty Museum in Los Angeles.

His American photographs were, until now, less known than his work in Asia — from which three books resulted: *In Pursuit of India* (Aperture, 1987), *Fire, Water, Wind* (Doyusha, 1995), and *Vietnam: A Book of Changes* (Norton/DoubleTake, 1996). Production designer for *Salaam Bombay!* and *Mississippi Masala*, Epstein was also cinematographer of numerous documentaries. His most recent book, *The City* (powerHouse, 2001), journeys through public and private life in Manhattan. He is currently at work on a project about his father and his hometown of Holyoke, Massachusetts.

All photographs courtesy Brent Sikkema, New York, and Rose Gallery, Santa Monica

BILL OWENS 2001

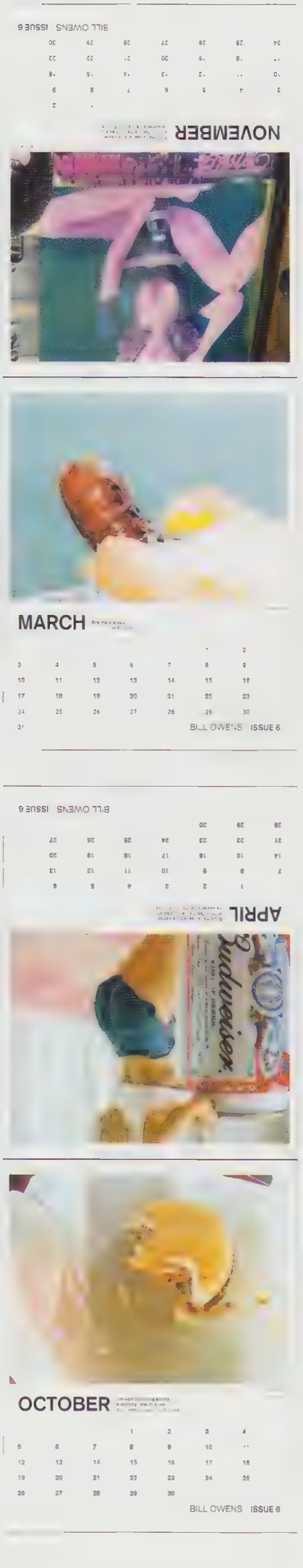
"Buy a man a beer, and he wastes an hour.
Teach a man to brew, and he wastes a lifetime"

BILL OWENS: NEW AND IMPROVED

A photograph of a distracted housewife in curlers clutching a baby in a cluttered kitchen is accompanied by a caption that reads, "How can I worry about the damned dishes when there are children dying in Vietnam?" This is one of the many memorable images from Bill Owens' groundbreaking 1973 photo essay *Suburbia*. Owens became interested in documentary photography while serving in the Peace Corps in Jamaica during the mid-1960s, and was further spurred on when he saw Farm Security Administration photographs from the 1930s and '40s. After leaving the Peace Corps, he landed a job as a freelance photographer for the *Livermore Independent*, in Livermore, California. While recording local events, such as beauty pageants and rotary club functions, he was seduced by the rich variety he found within a seemingly homogenous lifestyle. "To me, nothing seemed familiar, yet, everything was very, very familiar," he has remarked. "At first I suffered from culture shock. I wanted to photograph everything, thousands of photographs. Then slowly I began to put my thoughts and feelings together and to document Americans in suburbia."

The feelings of strangeness yet intense familiarity Owens initially experienced came through in the completed photo essay, which indelibly captured such typical suburban activities as barbecues, Tupperware parties, and Fourth of July parades. Most of the shots are accompanied by deadpan captions written by the people pictured, generating a degree of intimacy that counterbalances what might otherwise seem distanced or ironic. Over the years, these vivid images have influenced numerous filmmakers and other photographers — one shot, for example, inspired the homecoming dance scene in Sofia Coppola's film *The Virgin Suicides* (1999). *Suburbia* also led to a Guggenheim fellowship and two NEA grants for Owens, and he produced two more collections, *Our Kind of People* (1975), and *Working: I Did It for Money* (1977). Needing a better means to support his family, however, he put away his camera and turned to the beer-brewing business, ten years after the first publication of *Suburbia*'s epochal images of middle-class America. He started the nation's first brew pub, Buffalo Bill's Brewery, a business he operated from 1982 to 1996. He also founded *American Brewer Magazine*, which quickly became the standard trade publication in the field.

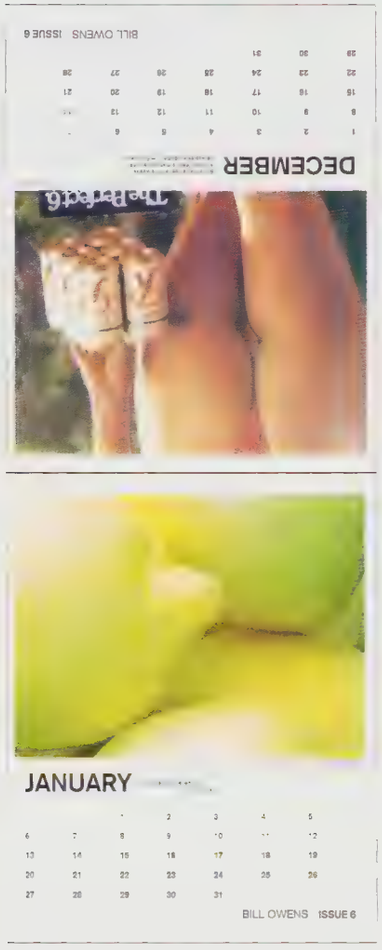
The increased critical attention given the medium of photography in recent years, and the republication of *Suburbia* by Fotofolio press in 1999 (as *Suburbia: New and Improved*), have led to a renewed appreciation of Owens' photographic achievements. He's had numerous recent solo



Yellowstone Nat'l Park Hote[illegible]ndow, 9/00

"Killing time in a hotel lobby waiting for a woman."

— Bill Owens



shows, as well as a retrospective at the San José Museum of Art. He also completed an ambitious series of large-format color photographs he began in 1978, *Leisure: Americans at Play*, which Fotofolio will release next spring. Forthcoming projects include assignments for a book by Peter Jennings on America, for which Owens has proposed documenting the WWF, monster trucks, or the clean room at Intel. He recently sold *American Brewer Magazine* in order to have more time to dedicate to projects involving photography.

Owens couldn't be more enthusiastic about the digital revolution. "The digital camera is the most natural extension of the eye there is," he believes, "because you don't have to focus, you don't have to F-stop, you don't have to do anything but have the vision, and the technical problems are eliminated. Another beauty of digital is that preview button — I can show the image to whoever I photograph, and if I don't like it I say, 'I don't like this shot, what do you think?' If they don't either, it's gone. You don't do that every time, but there are certain times you want to. One day I passed this young lady who works across the street. Suddenly I noticed she was barefoot, and then I saw her bright red toenails. She'd just had her toenails done at the nail place. How long did it take me to take the digital shot? Two-tenths of one second. I show it to her, we laugh, and I move on. Then I take that image, drag it off to my website and post it and everybody else can look at these toenails and have a smile on their face."

A selection of Owens' photographs are featured in a limited-edition reversible calendar included with copies of ISSUE 6 sent to subscribers, and sold in select museum and specialty bookstores. One side of this reversible calendar depicts a selection of his recent work. Of one of these shots he notes, "I consider myself a foodie, and I do a lot of close-ups of food. When you photograph a bowl of lemons and it suddenly looks like a woman's breast, it's outrageous." On the other side of the calendar is a series of photographs taken on assignment for ISSUE. We asked Owens to document his obsession with beer and women, and he responded with shots of subjects including beer posters from his own collection. We suggest using the calendar, which is not year-specific, to record birthdays and anniversaries. Owens also encourages people to go to his website, www.billowens.com, to sign up for a newsletter he recently started called *American Distiller*, and to join his "Friends of Bill" mailing list. "If you join FOB," he advises, "you can get my funny e-mails with all kinds of images."

REBEL ANGEL: KENNETH ANGER RISES AGAIN

Kenneth Anger is a true rebel (how many filmmakers would list among their hobbies "tap dancing" and "hexing enemies," as he did in 1966?), so it's hardly surprising that he has been as influential as he is underappreciated. High-profile directors he's inspired include Martin Scorsese, Francis Ford Coppola, Rainer Werner Fassbinder, David Lynch, and John Waters, while his aesthetic has been pilfered, often unwittingly, in countless music videos and commercials. He's even impressed his idols: his poetic fever dream *Fireworks* (1947) — spiked with blood and milk, brutal sailors, and a tinsel-drenched Christmas tree — may have spurred Jean Genet to shoot his own erotic fantasy film, *Un Chant d'Amour* (1949). Anger still casts his spell over imaginative younger filmmakers. In 1999, for example the French director Olivier Assayas (*Irma Vep*) wrote a monograph on Anger in an attempt to better understand his own creative development. And Lewis Klahr, who's made such exquisite collage films as *Pony Glass*, *Altair*, and *The Mousetrap*, the film-within-a-film in Michael Almereyda's recent *Hamlet*, has found Anger's work a source of numerous revelations: "that it's possible to love Hollywood but use it as a jumping-off point to an equivalent, different kind of narrative film language; to be accessible without sacrificing depth when working experimentally; to use pop songs like found footage and edit them into a whole whose impact is much greater than the sum of its disparate parts; and that the mythic and the real don't stand in contradiction to one another and, likewise, the power of the emotionally dark is in direct proportion to the inclusion of its complementary opposite."

Born Kenneth Anglemyer in Santa Monica in 1927, Anger began shooting movies as a preteen. After the explosive debut of *Fireworks*, he traveled to France, where he completed *Rabbit's Moon* (1950) and *Eaux d'artifice* (1953), ravishingly lyrical works with sexual undertones. In the U.S. in 1954 he began to shoot his first color film, the hallucinatory *Inauguration of the Pleasure Dome* (1954–78), in which an occult ritual is enacted by a raft of iconic performers, including Anaïs Nin as Astarte, goddess of the moon. Anger is perhaps best known for the once-banned *Scorpio Rising* (1963), a homoerotic, brilliantly edited biker-flick-to-end-all-biker-flicks, in which Top-40 rock songs provide an ironic counterpoint to images of sex and violence (Bobby Vinton croons "Blue Velvet" as butch motorcyclists dress in leather and chains) — a film he has called a "death mirror held up to American culture." Works that followed included the unfinished *Kustom Kar Kommandos* (1964), about teens and their fetishized hot-rods, and *Lucifer Rising* (1966/80), in which Lucifer is an angel of light and Marianne Faithfull portrays Lilith — for one of its incarnations, the score was written by Bobby Beausoleil, of Manson fame. *Invocation of my Demon Brother* (1969), which Anger has described as "the last blast of the Haight consciousness," was crafted

Far Left: *Force and fire*: Kenneth Anger as the dreamer in *Fireworks* (1947), still from a 16mm. film in black-and-white. Courtesy Anthology Film Archives.

Left: *She wore blue velvet*: Bruce Byron as Scorpio in *Scorpio Rising* (1964), still from a 35mm. film in color. Courtesy Anthology Film Archives.

from the remains of the 1966 version of *Lucifer Rising* (Beausoleil had stolen some of the footage), with an original soundtrack made by Mick Jagger using a Moog synthesizer. Anger's *Hollywood Babylon* was also first published in France in 1960 — a lurid catalogue of celebrity scandal, it reflects his love/hate relationship with Tinseltown and belief that cinema embodies light and darkness, sex and death.

Although word on the street has often been that Anger ceased making films, in fact he's always nursed ideas for projects, and has recently presented some new works. In 1998 he made the video *Don't Smoke That Cigarette*, a collage of outtakes from banned cigarette ads juxtaposed with images of cancerous organs. ("It has my black humor," he sweetly points out.) In Amsterdam the same year he screened *I Will! A Hitler Youth's Dream*, reedited newsreel footage recording the seduction of young people into joining the Hitlerjugend movement, a project that he says remains unfinished due to lack of funds. Last April, he appeared in San Francisco to receive the San Francisco International Film Festival's Persistence of Vision award, wearing a favorite red sweater emblazoned with his name. Narrating live, he screened *The Man We Want to Hang*, a work-in-progress documenting an exhibition of paintings by one of his lifelong heroes, the English magus Aleister Crowley. Taken from a famous newspaper headline, the title puns on the idea of picture-hanging.

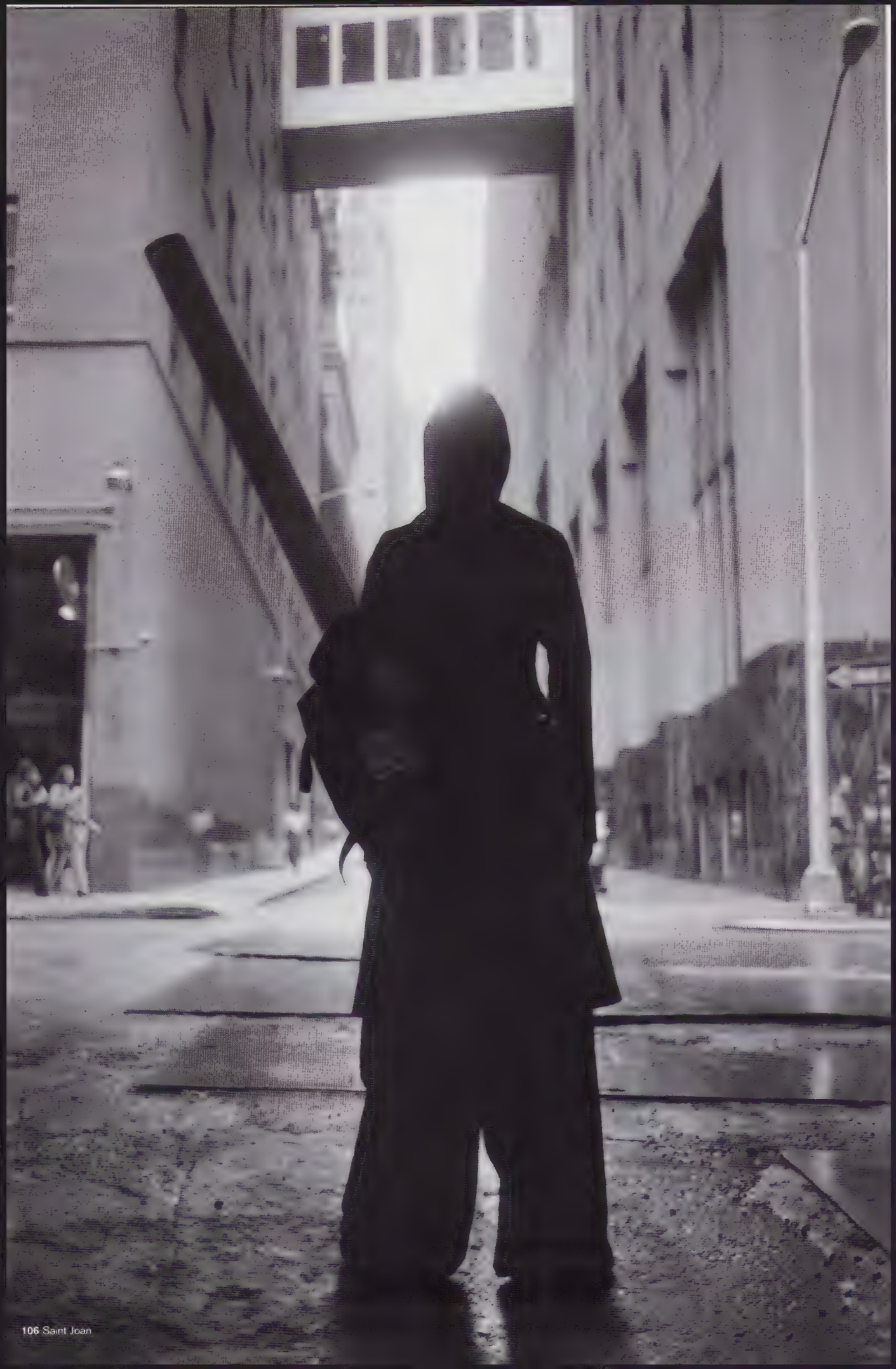
Anger's major works have been available on videocassette for some time, although video is a poor substitute for viewing a rare, fragile film print. Now Fantoma Films has licensed all of his works for DVD, which they plan to release in separate volumes starting in early 2002. Anger fans will be thrilled to know that the DVD may contain two now-inaccessible early works, *Who Has Been Rocking My Dreamboat* and *Ferdinand the Bull*, as well as outtakes and tests from other projects. Reached by phone as we were going to press with this issue, Anger noted that although he had yet to evaluate the condition of this material, he expected to be able to include "some excerpts from early films." He has also agreed to record full-length audio-commentary and, according to Fantoma, Beausoleil will contribute remarks about *Lucifer Rising*. Anger has always been phoenix-like, creating multiple versions of many of his movies — even going so far as to publish his own death notice in *The Village Voice* in 1967. Perhaps the DVD will constitute yet another rebirth.

— Kristin M. Jones

During a 1948 festival of "damned" films,

Jean Cocteau proclaimed, "This film comes from that beautiful night from which emerge all true works. It touches the quick of the soul, and this is very rare."

He had just bestowed a prize on *Fireworks* by a Hollywood teenager named Kenneth Anger. Cocteau, who was one of Anger's idols, then sent Anger a letter that inspired him to go to Europe, and later gave him permission to film the ballet *The Young Man and Death*. The precocious young filmmaker, however was already launched on a flaming trajectory that would leave searing traces on cinema history.



SAINT JOAN

previous spread
coat and pants yohji yamamoto
messenger bag demartini globe canvas
custom patches dog

above
top and pants yohji yamamoto
two-way radio motorola

above
top balenciaga "le dix" by nicolas ghesquière
customized pants dickies, leggings prada
necklace and belt raf simons

right
jacket balenciaga "le dix" by nicolas ghesquière
hooded top yohji yamamoto
customized pants dickies, leggings prada
sneakers adidas
personal communicator motorola

hooded top and sweater
jean jacket
dress and leggings

above
jacket and cape yohji yamamoto

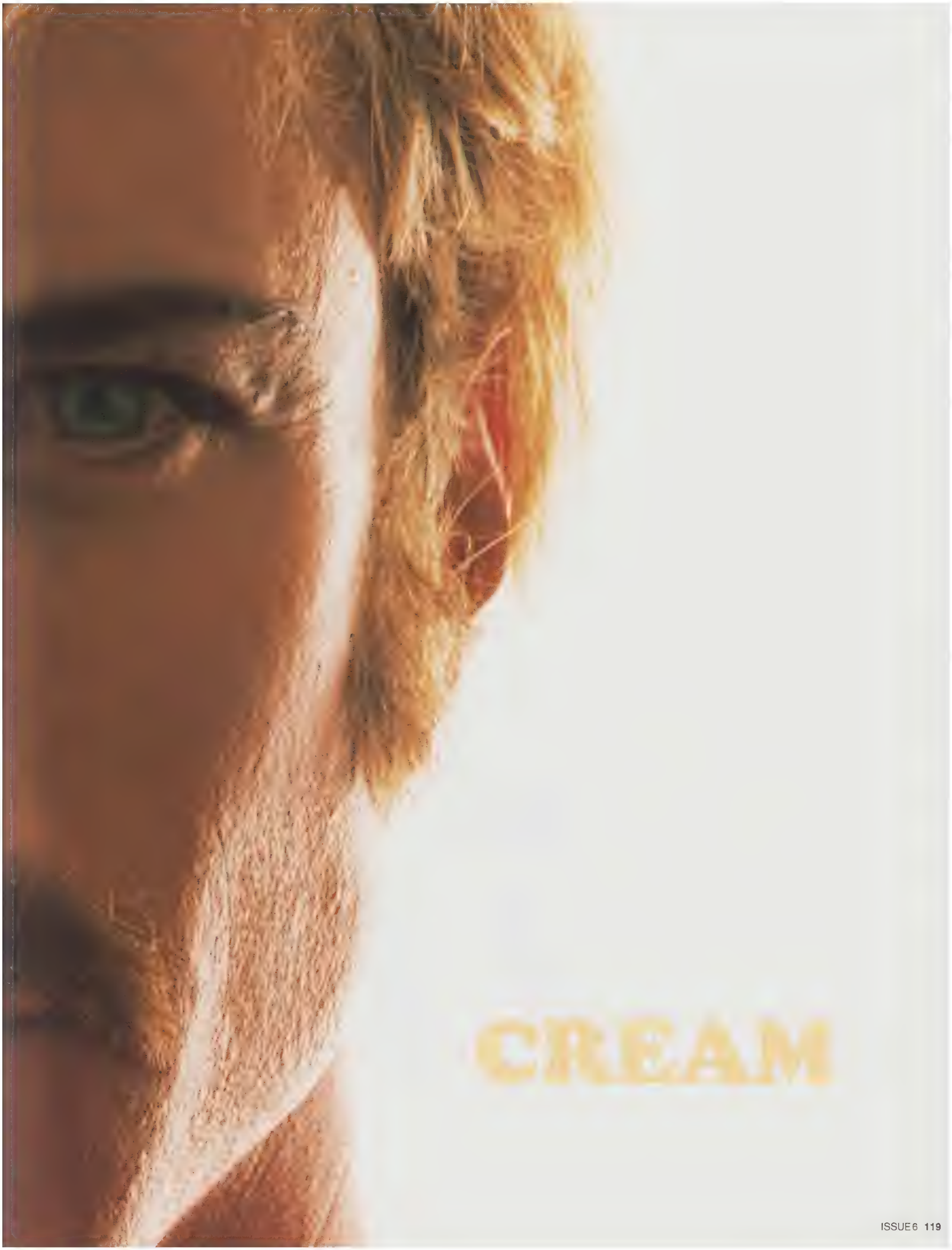
right
top balenciaga "le dix" by nicolas ghesquière
customized pants dickies, leggings prada
necklace and belt raf simons

Photography Ari Marcopoulos

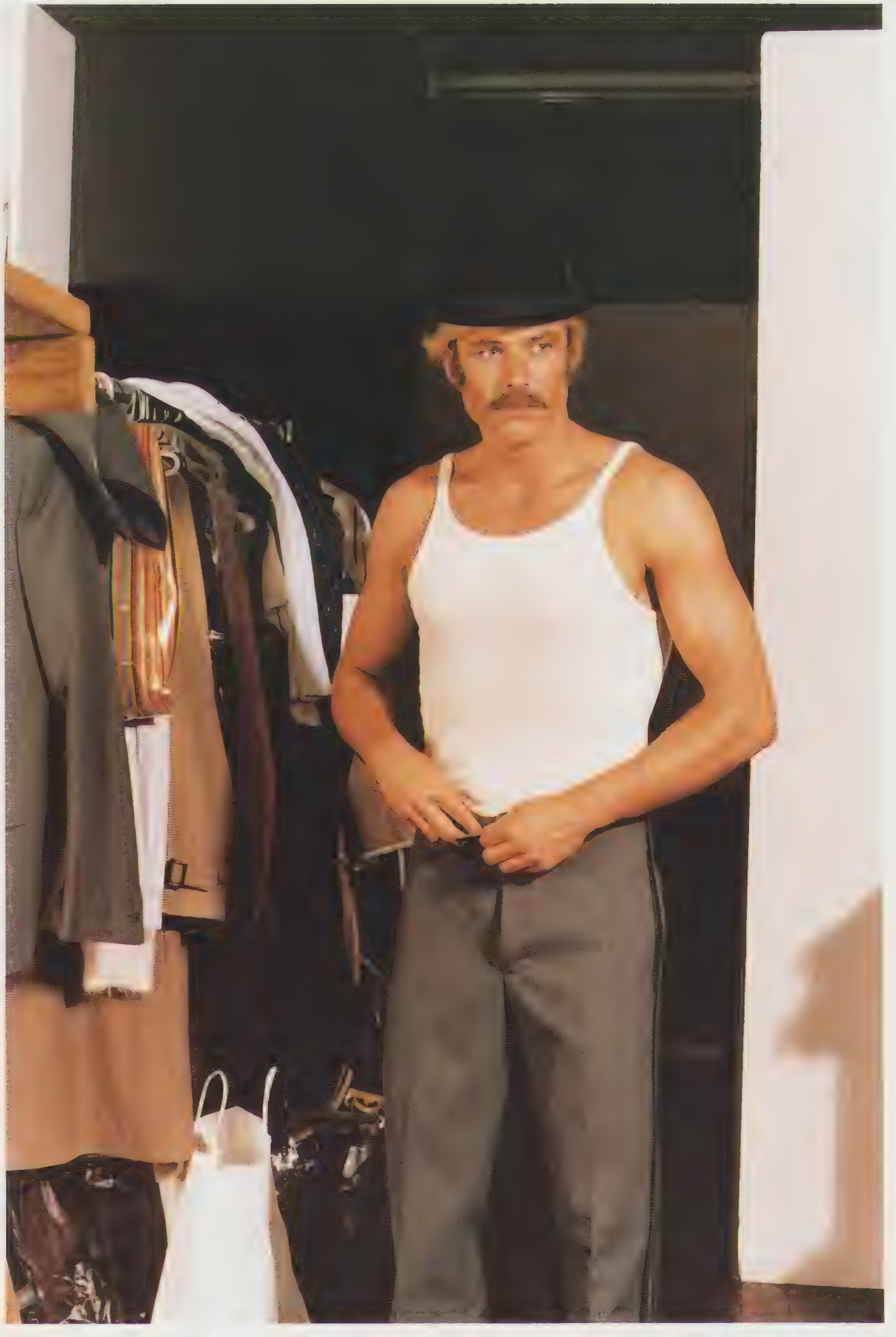
Styling John Vertin

Hair Nicholas James
Makeup June Funahashi

Model Amanda Brown


CREAM

coat and pants martin margiela, sneakers adidas, hat whiskey dust, sunglasses foster grant



tank top levi's vintage clothing, parts carol christian poell, hat whiskey dust

sweater and vest martin margiela, jeans levi's 501

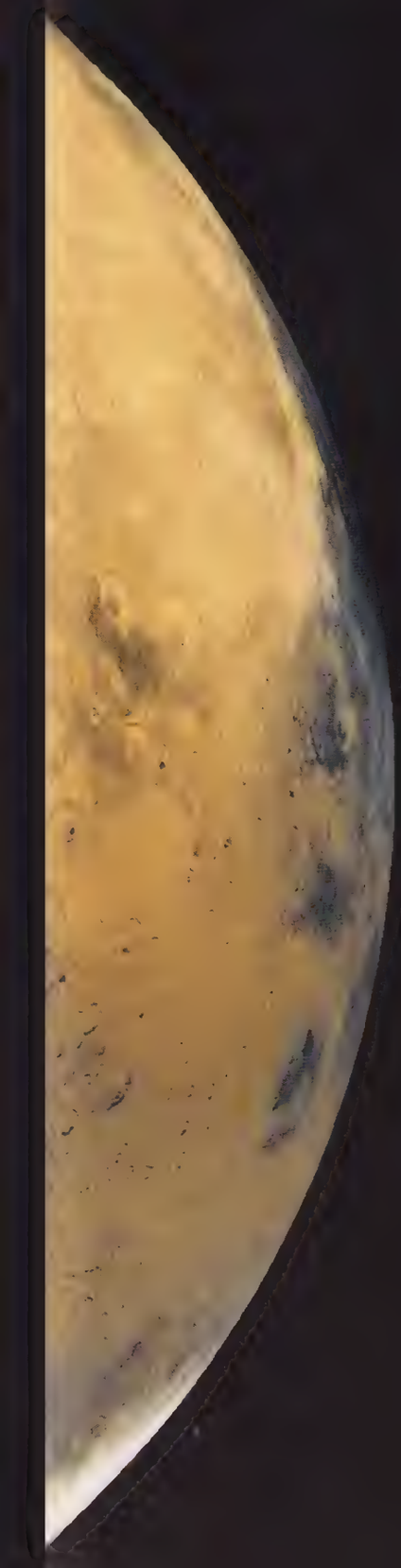
shirt and sweater martin margiela, turtleneck salvation army
following right three-piece suit carol christian poell, tank top levi's vintage clothing, hat whiskey dust

Photography
Jan-Willem Dikkers

Styling
John Vertin

Hair and Makeup
Regina Harris

Models
Doug Rumsey Mark Johnson



MOVING TO MARS?

If all goes according to plan, Mars will be the site of the first off-planet large-scale community. From the perspective of the human race, this will be a significant transformations. From the point of view of the galaxy, migrations of terrestrial travellers may not be significant at all. Regardless, NASA already has decades of Mars missions scheduled. There are private, public, and multinational corporations devoted to a Mars agenda. In fact, entire industries are profiting from the research and development of Mars-related technologies. There are no shortages of speculation about Mars habitation. Sci-fi has kept Mars in the popular imagination as long as we have been looking up — recent space tourism has fueled this desire. It seems like a rough outback kind of adventure tour, at the very best. Pictures of Mars reveal a kind of desolate beauty. But what exactly is the status of this technical endeavor? How long do we have to wait to book a flight?

— Dennis Balk

MARS DIRECT

By Robert M. Zubrin & David A. Baker

UNEXPECTED SETBACKS

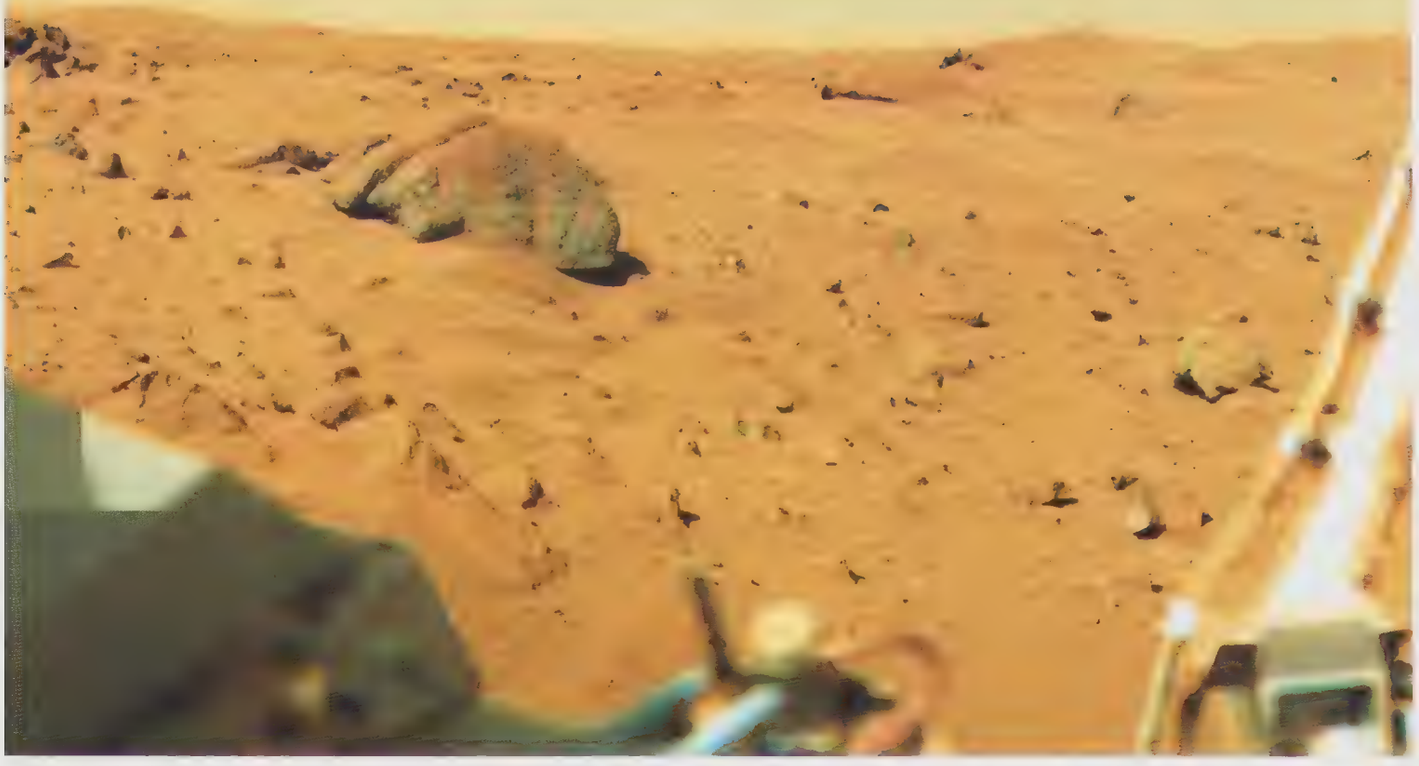
EVIDENCE OF LIFE

WHAT ARE THE PSYCHOLOGICAL RISKS?

MARS DIRECT

A Proposal for the Rapid Exploration and Colonization of the Red Planet

Can the United States send humans to Mars during the present decade? Absolutely



This image was acquired at the Viking Lander 1 site. The large rock left of the center is about 2 meters wide. The top of the rock is covered with red soil. Those portions of the rock not covered are similar in color to basaltic rocks on Earth. Therefore, this may be a fragment of lava flow that was ejected by an impact crater. The reddish color of the rocks and the soil is due to an abundance of oxidized iron in fine-grained weathering products of the rocks.

The vision of travel to Mars has long held a thrilling and unlikely place in the sci-fi imagination and the American psyche alike. This dream, frightening as it may seem, could be closer than we thought possible. The potential exists to colonize Mars during the twenty-first century at a rate comparable to the European settlement of North America during the seventeenth. As we have seen, the colony established in such a way can not only survive, but flourish as well. The transformation of Mars, then, into a world habitable by humans and other terrestrial life is not a fantasy, but a reality. We have developed a mission chronology and a set of vehicle designs that can make this possible. The plan is called Mars Direct.

The beauty of the Mars Direct plan lies in its simplicity; it does not require any in-orbit refueling, or any support from the orbital infrastructure we have already constructed. At the same time, the plan is not merely a "flags and footprints" expedition. The proposal will establish an immediately economical method of Earth-Mars transportation, real surface exploratory mobility, and a large and well-equipped base from which management of a self-sufficient Mars settlement will be possible.

In its initial phase, the plan will use chemical propulsion to send three-year missions of four people to Mars for exploratory purposes. The second phase, with its goal of base-establishment and colonization, will benefit from the use of nuclear thermal propulsion to cut crew transit times in half. While the first phase requires only two heavy-life booster launches for each mission, the efficiency of thermonuclear power, with its increased cargo capacity, will enable a new global mobility on the surface of Mars during its second phase. The twofold goal of Mars exploration through the use of CO2-propelled ballistic hopping vehicles (NIMFs) and permanent settlement buildup will be made possible with a self-sufficient base acting as a construction team and economic manager to support the wave of colonists to follow.

MARS DIRECT: PHASE I

HEAVY LIFT LAUNCH AND AN EARTH RETURN VEHICLE (ERV)

The "Ares" heavy-lift launch vehicle is the first in a series of steps needed to send a crew to Mars. Its lift-off from Cape Canaveral uses the upper stage of a single-shuttle-derived launcher to fire an unmanned payload on a minimum-energy trajectory to Mars. This unmanned payload consists of the following: an unfueled two-stage ascent and Earth return vehicle (ERV) employing methane/oxygen engines, a life-support system and nine months' worth of food for four people, six tons of liquid hydrogen, a 100-kilowatt-electric (kWe) nuclear reactor mounted on a small methane/oxygen powered driven utility truck, a small set of compressors and an automated chemical processing unit, and two small robotic rovers.

Once the payload aero-brakes and lands, the installation of a reactor must occur immediately. The 100-kWe reactor is driven a few hundred yards away from the landing site, and lowered into a natural or robot-blasted depression, depending on the surrounding terrain. Its radiators are then cabled back to the lander. The previously unused reactor is then started up to provide 100kW of energy to the site facilities. In the ten-month preparation period for the arrival of a manned crew, this amount of energy will yield approximately 108 tons of the methane/oxygen propellant needed for base operations and return to Earth.

Since the unmanned payload takes only eight months to fly to Mars, plus ten months to manufacture the propellant, the twenty-six-month Mars launch intervals provide more than adequate time for the accumulation of a sufficient supply of methane/oxygen bipropellant for crew activity and return home.

TWO ADDITIONAL LAUNCHES INCLUDING THE FUEL FOR RETURN

While the first reactor is busy at work, two more Ares boosters will lift off from the cape within a few weeks of each other. One of them is an unmanned payload identical to the one launched previously. The other is manned and its two decks contain some 110.2 m2 of floor space, allowing it to accommodate a crew of four. This booster will contain about 40 metric tons of equipment, including parachutes, landing propellant, provisions, and a ground car powered by pressurized methane/oxygen internal combustion. It is therefore light enough that the booster upper stage can project it directly onto a minimum energy ($C3 = 15\ km^2/s^2$) transfer orbit to Mars without any Earth-orbit refueling or assembly.

The conventional plan requires all of the propellant for return travel to be brought from Earth — a scheme that typically requires between four and seven Saturn V-class booster launches each. In this plan, each manned mission to Mars requires only two Ares booster launches: one to deliver an efficient, minimum-energy orbit ride home, and one for Mars surface operations buildup. The Mars Direct plan further exploits the extra cargo capacity by bringing the crew's hardware with them to the surface so that they are less dependent on Earth-Mars communication for their exploratory missions. During their 500 days on the surface of Mars, the crew will be protected from solar flare hazard and cosmic rays by their landed habitats and sandbags, also transported from Earth.

EXTREME VEHICULAR EXPLORATION

Using a remarkably small amount of the manufactured methane/oxygen fuel (12 of the 108 tons), the crew will be able to explore much of the planet in a ground car capable of covering 20,000 km at speeds over 30 mph. The efficiency and distances available to such a car can also be increased if it is equipped to condense the water vapor in its exhaust for later use. The second payload's fuel production will also enable the car to

UNEXPECTED SETBACKS

Hurtling through space at speeds over 12,000 m.p.h., more than 15 times the speed of sound, a slight correction is made, ensuring that the destination of this polar projectile is as planned. The two most recent efforts to reach and study the red planet have proven disastrous, but the expectations of discovery drives all involved to continue their efforts.

The Mars Polar Lander was launched on January 3, 1999, as a part of NASA's Mars Surveyor Program, a multi-mission expedition intended to educate the earthbound about Mars and the climactic history of the southern pole. The lander's primary mission was to study the meteorology of the polar region, perform landscape imaging, and collect soil samples for analysis. It was to be integral to all the Mars missions scheduled over the next five years. Along with the Polar Lander, two Deep Space 2 probes were to penetrate and embed themselves up to a meter below the Martian surface in an effort to search for subterranean ice and microorganisms.

The proposed landing was to occur right after Mars' perihelion, the orbital event at which Mars and the sun would be closest, giving the lander a chance to observe a period of intense dust storms.

With less than two weeks before touchdown, the control teams responsible for guiding the Mars Polar Lander to its final resting place prepared for a full-scale dress rehearsal. They simulated the landing and the very crucial first four days of instrument deployment and data acquisition. After the simulated landing, the mission teams received dummy image and data sets from the mock spacecraft. Officials even put together a press conference and proceeded to rehearse the revelation of the first close-up images of the Martian polar region to the world.

This would be their only such press conference. On December 3, 1999, contact with the Mars Polar Lander abruptly broke off during atmospheric entry and was never regained. Subsequent efforts to either communicate with, or locate, any of the mission constituents, have failed.

As with any failure of this magnitude, fingers were pointed and blame assigned. Multiple scenarios were debated to account for the failure and none of them seemed ultimately convincing. Not until an accidental discovery by the spacecraft-builder, Lockheed-Martin, in early February of 2000, did the team have the answer: one faulty line of computer code. "It was by luck, quite frankly, that we found this error," said Edward Euler, Lockheed's program director for the Mars '98 missions.

The fatal flaw was discovered during testing of another lander initially set to launch in 2001. The JPL Special Review Board determined that the error in the software caused a premature shutdown in the descent engines. With the loss of $165 million NASA dollars and an immeasurable wealth of information, NASA has delayed the launch of the 2001 lander spacecraft until 2003. The loss is further compounded by the earlier failure of the Mars Climate Orbiter. Five minutes into the orbit insertion, on September 23, 1999, the Orbiter was occulted by Mars and contact was never reestablished.

foray from that location, further increasing the accessible territory to almost 1.5 million square kilometers. During the mapping and exploration projects, the crew will search for clues to the planet's geologic history and possibly to past or present life. Another key item on the crew's agenda will be to locate pockets of water ice that are readily exploitable. The availability of native water will negate the Mars crew's dependence on Earth-sent supplies of hydrogen, thus increasing their self-sufficiency and the efficiency of the missions.

Further independence from ground-support will be achieved by the agricultural project that will begin during the first mission. In an inflatable greenhouse transported from home, the crew will undertake experiments in growing food crops that may later be observed tele-robotically, even after the crew has departed in their methane/oxygen ascent vehicle.

The first mission's work will be continued almost immediately by the second four-person crew, who will also arrive accompanied by a payload that will serve as the next mission's power-plant and return vehicle. This pattern establishes a string of interlocked Mars mission base camps and a new payload landing every two years. These base camps will be separated by 800 kilometers, thus vastly increasing the territory available for exploration, and dotting the Martian map with self-sustainable mini-colonies.

MARS DIRECT: PHASE II

CONTRUCTING HOMEBASE

At this point in the Mars Direct plan, the mission strategy will be slightly reoriented, placing a new emphasis on base-buildup in addition to exploration. Building a sizable base will require increased payload delivery from Earth as well as larger crews to truly ready the stage for colonization. The use of NTR, or Nuclear Thermal Rockets, will make this possible. NTR relies on no orbital infrastructure, and is simply incorporated into the existing structure of the plan as a third stage to the Ares launch vehicle.

NUCLEAR ROCKET USING INDIGENOUS MARTIAN FUEL

The continuing exploration of the planet will also improve vastly as a result of NTR technology. Since NTRs can use compressed atmospheric Martian CO2 as propellant, rocket vehicles equipped with this technology will achieve complete global mobility at extremely low energy cost. These vehicles, known as NIMFs (Nuclear rocket using Indigenous Martian Fuel), are capable of refueling themselves completely using a 25-kWe power source in only 50 days, and have no reliance on any surface infrastructure.

BUILDING A PROTO-COLONY

Due to the limitless mobility of the NIMF vehicles, widely dispersed base camps and payloads no longer have any advantage. Thus, later landings can be concentrated at an ideal spot, forming a sort of proto-colony from which industrial and agricultural projects can be managed. By the twenty-fifth year of the base's existence, almost 18 Mwe of power will be in place: far, far more than the probable 48-person installation would require for life support and propellant manufacture. The excess energy will be effectively put into use for large-scale processing, producing materials to construct vast pressurized structures for agriculture, industry, and living. While such research and processing is underway at the base, planetary travel and research will continue with ease through use of the NIMF.

This simultaneous exploration and productivity, with its energy-intensive industry and greenhouse agriculture, will create the economic and scientific base required to support the flood of immigrants destined for a Martian Plymouth.

A BRIEF HISTORY OF MARS MISSIONS

MARINER 4 FLYBY USA (Nov. 28, 1964 – Dec. 20, 1967)
The first successful mission to Mars was Mariner 4, which passed within 9,920 kilometers of Mars on July 14, 1965. Like every first-time tourist, Mariner 4 took some less than artistic photos. It went on to confirm suspicions of a low-pressure atmosphere, comprised of carbon dioxide, and after detecting the small, intrinsic, magnetic field, Mariner 4 assumed a solar orbit.

ZOND 2 FLYBY USSR (Nov. 30, 1964)
Unlike four of the five previous attempts by the then Soviets to reach Mars, the craft did not explode before reaching Earth orbit. Contact was lost en route, leaving one to assume that unless a celestial impact has occurred, the vehicle is still in a solar orbit.

MARS 2 ORBITER/SOFT LANDER USSR (May 19, 1971)
The Mars 2 Lander was to make the biggest impact on Mars to date. Released from the orbiter on November 27, 1971, its retro-rockets failed to activate and the first human artifact was created on Mars, an interplanetary installation of chaos sculpture entitled "Ode to malfunction." No data was collected.

MARS 3 ORBITER/SOFT LANDER USSR (May 28, 1971)
Luckily, the Soviets had doubled their efforts and on December 2, 1971, Mars 3 arrived at Mars and became the first successful landing. Its success was short-lived, as the Lander's systems failed after relaying 20 seconds of video data to the orbiter.

MARINER 9 ORBITER USA (May 30, 1971 – 1972)
Mariner 9 became the first U.S. spacecraft to orbit another planet, other than the moon, on November 24, 1971. While its doing so made history, the huge dust storm on the planet's surface, preventing any scientific experimentation, sought to belittle the achievement. The moons of Mars, Phobos, and Deimos, were the subject of intense imaging as this was the first opportunity to observe them closely. In addition, distinct geological markings were discovered, indicative of the presence of water on the "Red Planet."

VIKING 1 AND VIKING 2 ORBITER/LANDER USA (Aug. 20, 1975 – Aug. 7, 1980)
Viking 1 & Viking 2 each had an Orbiter and a Lander. Viking 1's Lander touched down on July 20, 1976, and Viking 2's on July 24, 1976. Both Landers had experiments planned to search for microorganisms, essential for life on Mars. The results of these experiments are still being debated, like JFK's "magic bullet." The Landers provided detailed color panoramic views of the Martian terrain, and monitored the Martian weather until the Viking 1 Lander, the sole surviving remnant of the missions, was accidentally shut down on November 13, 1982, and communication was never regained.

PHOBOS 1 AND PHOBOS 2 ORBITER/LANDER USSR (July 7 and 12, 1988)
Phobos 1 & Phobos 2 were sent to investigate Phobos, one of the Martian moons. Phobos 1 was lost en route to Mars through a command error on September 2, 1988. Phobos 2 made it into orbit on January 30, 1989. The orbiter moved within 800 kilometers of Phobos and before releasing the lander, it, as did so many of its predecessors, failed.

MARS 96 ORBITER & LANDER Russia (Nov. 16, 1996)
Mars 96 was to be the most impressive mission yet. In addition to the launch vehicle there was an orbiter, two Landers, and two soil penetrators, designed to unveil the secrets of Mars Unfortunately, as the monolith reached Earth orbit, the final stage combusted prematurely, dropping its load, which included 270 grams of plutonium-238, into the deep, somewhere between Easter Island and the coast of Chile. This area is now known as the only place on earth to combine tanning and deep-sea exploration. Mental note: 1 lb (432 grams) of plutonium-238 properly dispersed, is enough to kill all humans on the planet.

MARS PATHFINDER LANDER & SURFACE ROVER USA (Dec. 4, 1996 – Sep. 27, 1997)
The Mars Pathfinder touched down in a fashion unique to its design. It bounced, like a kid at a hard-core show. After 16 touches, 2.5 minutes, and a 1 km journey from the initial impact, it came to rest in an area now known as the Sagan Memorial Station. Two days later the multi-million dollar Sojourner, a six-wheeled land rover, made its way onto the landscape. This mission is, by far, the most successful of all of the missions, in terms of data collected and "bang for the buck." It returned 2.6 gigabits of digital information, including over 16,000 high-resolution images, over a dozen chemical analyses, and extensive data on weather and climate.

A TECHNICAL SKETCH CALCULATING EVERY CONCEIVABLE MECHANICAL NEED FOR THE SETUP AND MAINTENANCE OF BASE

BASE POPULATION AND POWER BUILDUP

The base buildup strategy is as follows. First, a Phase I mission consisting of one hab and one ERV characterizes the site, staying on the surface and exploring th[e] [sur]rounding region for 1.5 years before returning to Earth. The site, having thus been selected for development on the basis of intimate knowledge of its characteristics, the mission, consisting of two standard Phase I habs (one hab deck, one cargo deck), plus two standard ERVs and one-way cargo launch is sent out. The eight-person crew of this mission will stay on the surface for four years.

The second team will arrive at Mars, bringing the base complement up to 16. Between the Phase I mission, the lower decks of the two habs of the [first] mission, and the two cargo launches there are now five cargo decks/workshops at the base. This is quite sufficient for workshop spa[ce] and the Phase I habs used on the [first three] missions are modified to accommodate habitation on both decks, thus giving the base a rapid expansion of living space per person.

The second two missions simply send out two 100-kWe reactors of the Phase I type with each ERV launch, start[ing] with the [...] the [...] electrics to a [...] each unit sent [...] each ERV, leading to a very rapid buildup of base electric power capability.

NUCLEUR THERMAL ROCKETS' INCREASED CAPABILITIES

The NTR stage has a specific impulse of 900 s, a power of 900 Megawatts-thermal (MWth), and a thrust of 45,000 lbs. With the addition of this stage, the Ares can throw 70 metric tons onto a minimum energy trans-Mars injection (TMI) trajectory (C3 = 15 km2/s2), an increase of about 50% over the 47-metric-ton TMI all-chemical Ares baseline.

In this calculation, NTR thrust to weight ratio of 5 and tank fraction of 0.1 are assumed. Thus, if we augment the Ares upper stage to maximize its capability as a LEO delivery system, about 83 tonnes can be thrown to Mars with each launch (excluding the mass of the NTR stage, which is expended). This is about an extra 20 tons of cargo delivered to the Martian surface with each launch.

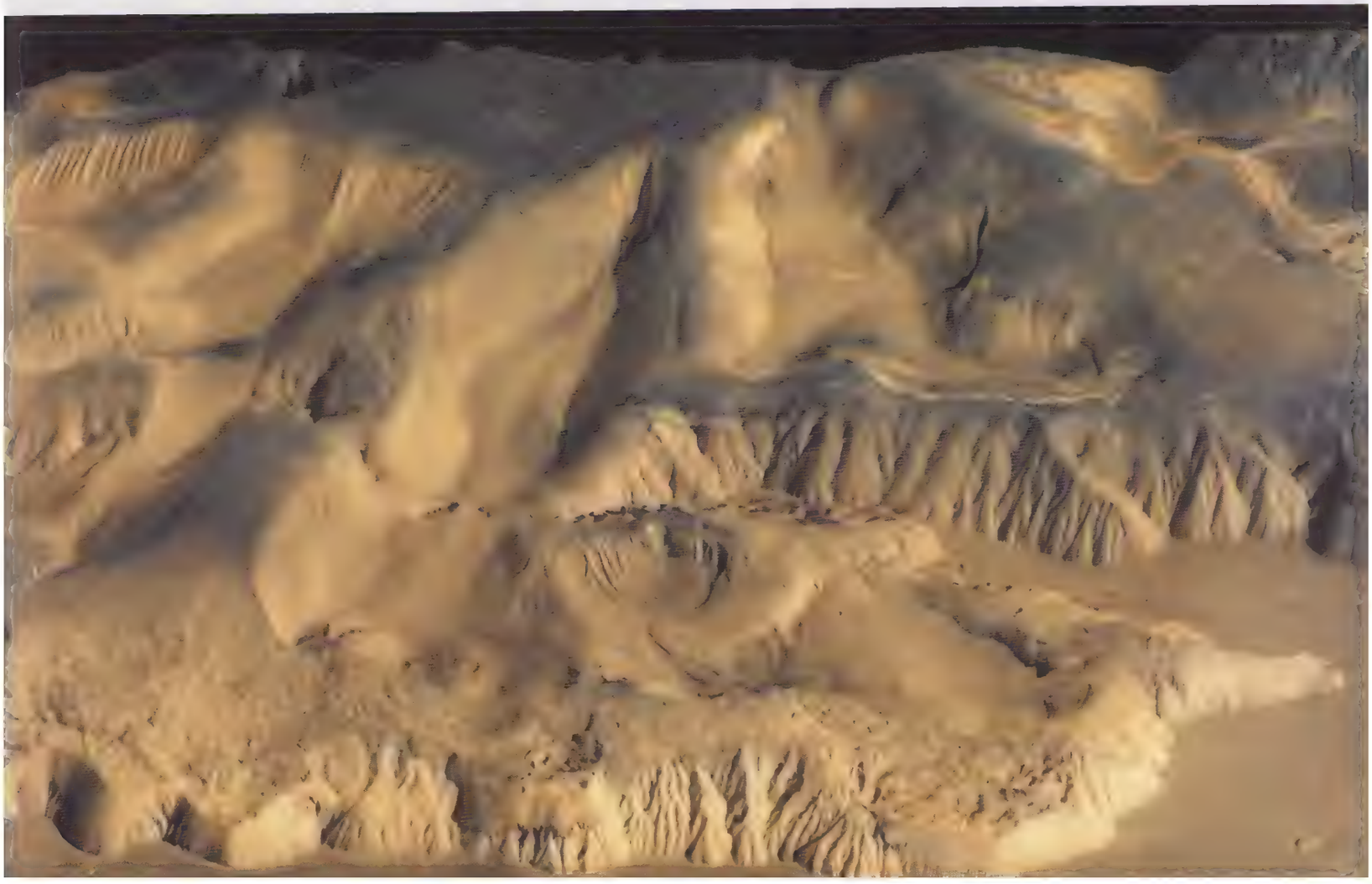
MARTIAN FUEL VEHICLES FOR GLOBAL MOBILITY

The NIMF vehicle has a 2513-MWth engine that generates 436 klb of thrust at a specific impulse of 264 s by heating CO2 to a temperature of 2800 K and exhausting it out a nozzle with an expansion ration of 100. The vehicle is able to hop from one point on the surface of Mars to any other point in a single bound. In addition, the NIMF can carry significant amounts of cargo over continental-scale distances.

Because CO2 becomes an oxidizing medium when heated to elevated temperatures, conventional NERVA (Nuclear Engine for Rocket Vehicle Applications) type carbide fuel elements cannot be used in a NIMF engine. Instead, either oxide or oxide-coated fuel pellets would have to be used. Uranium-thorium [...]um or thorium oxide to retain fission products could [...] tion at 2800 K.

[...]e NIMF vehicle has a maximum mass ratio of about 8.7, we can see that a [...]ture of about 2600 K is required if the 250-km by 1-sol orbit is to be attained. If all that is required is to obtain low Mars orbit, which would still give the NIMF complete global mobility, then a 2000 K propellant temperature is sufficient.

Color mosiac by Viking Orbiter of Candor Chasma, part of the Valles Marineris system, looking north over the 800Km wide chasm. Viking Orbiter.



COLONIZATION OF MARS

After only twenty-five years of base-building and preparation, we can see that a housing system, electric power-grid, and manufacturing and agricultural industries will be in place on the surface of the red planet. The stage is now set for the colonization of Mars.

If four boosters, each carrying 24 people and their housing, tools, and greenhouse supplies depart from Mars every year, given reasonable demographic projections, the population growth on Mars will closely approximate that of seventeenth-century colonial America.

Considering these population projections and the minimal effort necessary to populate the Martian town, the questions of industrial growth become more pressing. How will we utilize resources effectively? Can a Martian agriculture flourish? In terms of resources, Mars is extremely rich with carbon, nitrogen, and hydrogen: the holy trinity of terrestrial organic chemistry. Bring a few packets of seeds, several breeding pairs of rabbits and goats, and some inflatable greenhouses to Mars, and a self-expanding agriculture can be established. Can housing be constructed at a high enough rate? Will a Martian manufacturing industry meet the needs of its growing population? Plastics, metals, glasses, brick, and concrete can all be manufactured out of native materials and used to construct large-scale greenhouses, housing complexes, and even environmentally protected towns. Will the electric-power grid be enough to support a modern, flourishing colony? To sustain power and fuel needs for transportation and manufacturing, liquid fuels can be synthesized to propel ground vehicles and construction equipment. If necessary, the consumer power grid can be augmented by importing additional nuclear reactors at a rate of 1 850-kWe (dynamic cycle augmented) unit every four years initially, with larger multiunits supplanting them later on in the program.

This latter requirement to import nuclear reactors calls into question the Mars Colony's ability to be self-sustaining. While it is clear that a Mars colony could manufacture the large majority of its bulk requirements (consumables, propellants, housing materials), it seems equally clear that for a very long time it will remain necessary to import certain high-tech manufactured goods from Earth.

What, then are the benefits of colonizing a planet we must continue to support? Mars can provide a wealth of natural resources that will be hugely economically beneficial to Earth and its fetal offshoot on the Martian surface. One of these resources may be minerals. Our current understanding of Mars' geological history suggests that ore-forming processes have occurred over long periods in the planet's lifetime. While such ores have not yet been located, it is a prudent guess that Mars may be as richly endowed with mineral ores as Earth.

TERRAFORMING MARS

After one hundred years of base operations, industry, and agriculture, Mars's population is estimated to reach 80,000 people. The stability of manufacturing and production at this point will allow for the commencement of a terraforming operation whereby the entire Martian atmosphere would be made habitable by humans.

What we propose is a combination of two of McKay's design points for a terraformed Mars. This would commence with CFC production on Mars to begin greenhousing the planet, despite the fact that a nitrogen/oxygen atmosphere does not exist. As the planet starts to warm, the CO2 trapped as dry ice in the Mars' south polar ice cap will begin to vaporize, thickening the CO2 atmosphere and compounding the artificial greenhousing effect. Within 40 years, nearly all of the volatile CO2 can be made to vaporize, forming an atmosphere of about 0.3 bar pressure (4.4 psi) on Mars. While this atmosphere would not be breathable by humans, it would eliminate the need to wear pressure suits outdoors.

Within 100 years of the commencement of the terraforming effort, desert areas such as Chryse Planitia may be covered with amber waves of grain, and the lower slopes of the Olympus Mons decorated with proud tracks of ponderosa pine.

These plants will be capable of transforming Mars's atmosphere entirely, just as their ancestors did for Earth. The atmosphere they create will be nearly pure oxygen, at about the 3 psi level. As the experience of the Apollo and Skylab programs prove, humans can function quite well for extended periods of time in such an atmosphere. Thus, with the help of terrestrial flora, the day may come when humans standing on the surface of Mars doff their breathing gear and breathe in the cold crisp air of the Martian spring.

In 500 years, a space of time equal to that which separates the present age from that of Columbus, a civilization of over one billion people may live on a new Mars—a world not discovered, but created through the curiosity, ingenuity, and craft of its earthly ancestors.

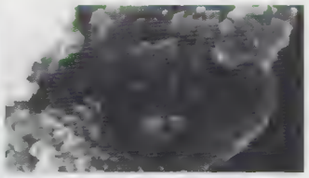
Robert Zubrin and David Baker are engineers from Nerdtastic, TX
Robert Zubrin, Ph.D., is an astronautics engineeer, on the B[illegible] Directors of the National Space Society, and a member of the Ma[illegible],

THE EVIDENCE OF MICROSCOPIC LIFE SO FAR

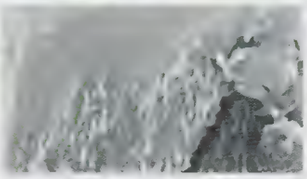
A NASA research team at the Johnson Space Center and at Stanford University has found an array of indirect evidence that strongly suggests primitive life may have existed on Mars more than 3.6 billion years ago.

MICROSCOPIC STRUCTURES:

MICROSCOPIC EGG-SHAPED STRUCTURES:



MICROSCOPIC TUBELIKE STRUCTURES:



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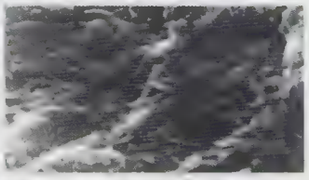

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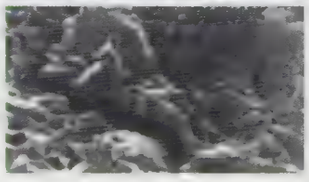
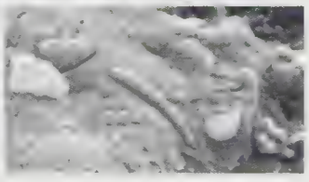


MICROSCOPIC TUBELIKE STRUCTURES



WHAT ARE THE PSYCHOLOGICAL RISKS?

The mythology of the Great American Hero has survived in at least one field that has managed to retain its romance and glamour over the years: aeronautics and space travel. NASA has always touted the rhetoric of simple, straightforward heroism, but with the reality of extended residence on the International Space Station and the possibility of a lengthy manned mission to Mars, these ideals may no longer be as relevant as the astronauts' mental fortitude.

According to a recent Discover magazine article by William Speed Weed, titled "Can we go to Mars Without Going Crazy?" astronauts traveling to the Red Planet would probably occupy a spacecraft no larger than a Boeing 747, on a journey that would take at least nine months each way. During the year and a half the seven crew members would spend on the surface of Mars they would be in constant close proximity, while fear of failure and resultant death, as well as the extreme distance from Earth, would inflict real and unavoidable psychological strain on the astronauts as well as those responsible for assessing them. The Discover article also points out that, although NASA has been alerted to the psychological risks of long-term manned missions, the agency's annual budget for psychological study and relief is only $3 million — far less than is allotted for public relations. Two psychologists who have been given a portion of this funding to design a solution propose installing an unintrusive diagnostic psychologist for each mission: a computer programmed to pinpoint and treat stress and anxiety before they grow to unmanageable proportions. The program would be armed with a battery of psychological tools, including opportunities for daily therapy and the ability to monitor physical symptoms of stress like blood pressure, heart-rate, respiration, and hormone levels. The discovery that the salivary hormone cortisol is an indicator of stress is spurring NASA to enlist biologists to search for other clues that may lead to a more comprehensive computer monitoring system for astronauts at risk. With a staff of engineers and astronauts capable of performing under the most intense conditions, NASA's greatest challenge in getting humans to Mars may lie in providing for the mental health of its mission-crew.

Larry Clark —> Christopher Wool (ISSUE 1)
—> Mark Gonzales (ISSUE 2)
—> Raymond Pettibon (ISSUE 3)
—> Paul Sietsema (ISSUE 4)
—> Paul McCarthy (ISSUE 5)
—> Spandau Parks (ISSUE 6) ...

AUTOPSY

Autopsy is a collaborative project that Paul McCarthy and Spandau Parks decided, after much discussion, to bring to fruition for ISSUE 6. It forms yet another link in ISSUE's ongoing chain of artist collaborations. McCarthy and Parks, who are both California-based artists, have been familiar with each other's work for years. *Autopsy* represents an accumulation of those associations.

au·to·nom·ic \ˌȯ-tə-ˈnä-mik\ *adj* (1898) **1** : acting or occurring involuntarily ⟨~ reflexes⟩ **2** : relating to, affecting, or controlled by the autonomic nervous system or its effects or activity ⟨~ drugs⟩ — **au·to·nom·i·cal·ly** \-mi-k(ə-)lē\ *adv*

autonomic nervous system *n* (1898) : a part of the vertebrate nervous system that innervates smooth and cardiac muscle and glandular tissues and governs involuntary actions (as secretion and peristalsis) and that consists of the sympathetic nervous system and the parasympathetic nervous system

Autopsy
Spandau Parks Paul McCarthy

au·ton·o·my \-mē\ *n, pl* **-mies** (ca. 1623) **1** : the quality or state of being self-governing; *esp* : the right of self-government **2** : self-directing freedom and esp. moral independence **3** : a self-governing state

au·to·pi·lot \ˈȯ-tō-ˌpī-lət\ *n* (1935) **1** : a device for automatically steering ships, aircraft, and spacecraft **2** : AUTOMATIC PILOT 2

au·to·poly·ploid \ˌȯ-tō-ˈpä-li-ˌplȯid\ *n* (1930) : an individual or strain whose chromosome complement consists of more than two complete copies of the genome of a single ancestral species — **autopolyploid** *adj* — **au·to·poly·ploi·dy** \-ˌplȯi-dē\ *n*

au·top·sy \ˈȯ-ˌtäp-sē, ˈȯ-təp-\ *n, pl* **-sies** [Gk *autopsia* act of seeing with one's own eyes, fr. *aut-* + *opsis* sight, appearance — more at OPTIC] (1678) **1** : an examination of a body after death to determine the cause of death or the character and extent of changes produced by disease **2** : a critical examination, evaluation, or assessment of someone or something past — **autopsy** *vt*

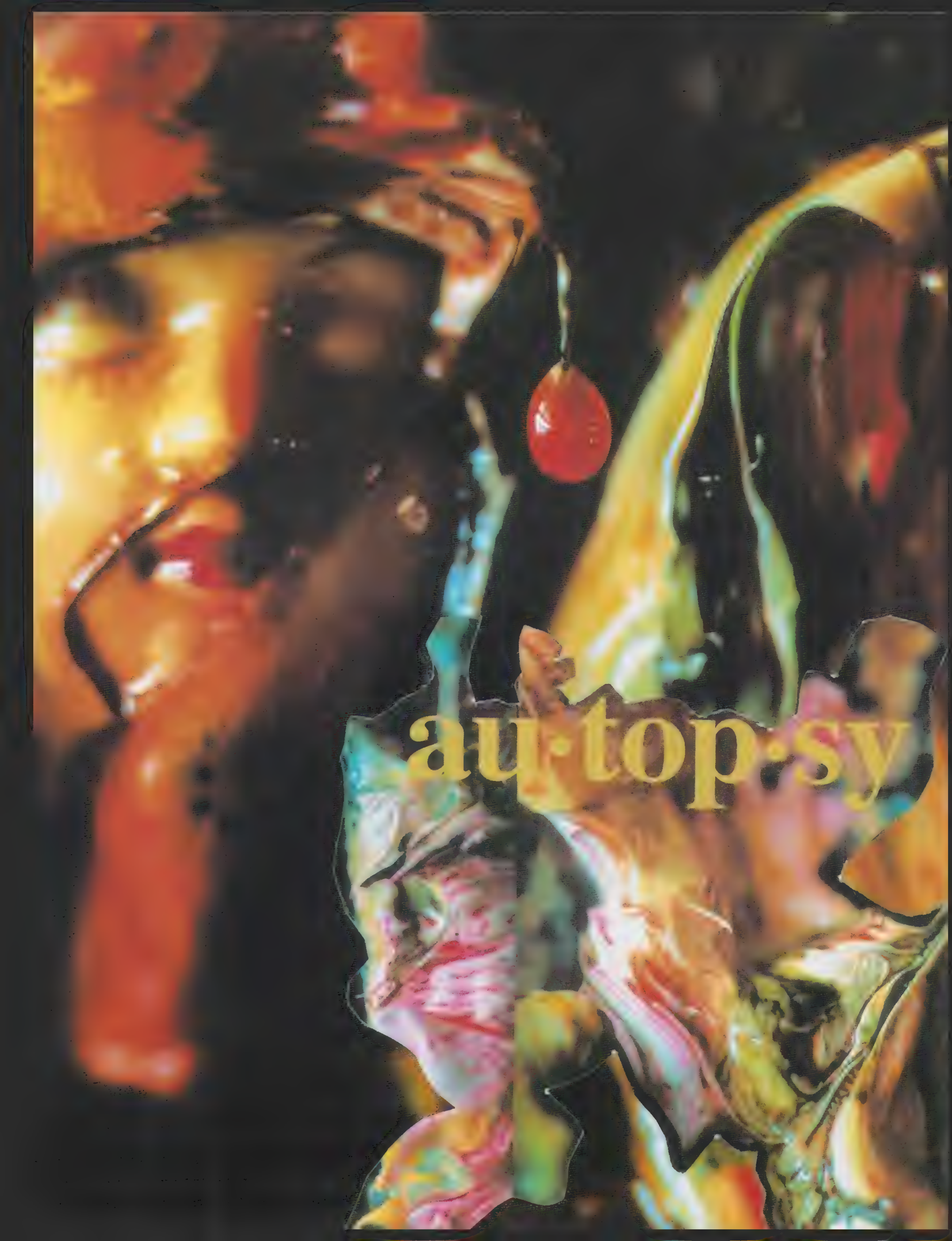
au·to·ra·dio·gram \ˌȯ-tō-ˈrā-dē-ə-ˌgram\ *n* (1949) : AUTORADIOGRAPH

au·to·ra·dio·graph \ˌȯ-tō-ˈrā-dē-ə-ˌgraf\ *n* [ISV] (1903) : an image produced on a photographic film or plate by the radiations from a radioactive substance in an object which is in close contact with the emulsion — **au·to·ra·dio·graph·ic** \-ˌrā-dē-ə-ˈgra-fik\ *adj* — **au·to·ra·di·og·ra·phy** \-ˌrā-dē-ˈä-grə-fē\ *n*

au·to·ro·ta·tion \-rō-ˈtā-shən\ *n* (1918) : the turning of the rotor of an autogiro or a helicopter with the resulting lift caused solely by the aerodynamic forces induced by motion of the rotor along its flight path — **au·to·ro·tate** \-ˈrō-ˌtāt\ *vi*

au·to·route \ˈȯ-tō-ˌrüt, -ˌraůt\ *n* [F, fr. *auto*mobile + *route*] (1951) : an expressway esp. in France

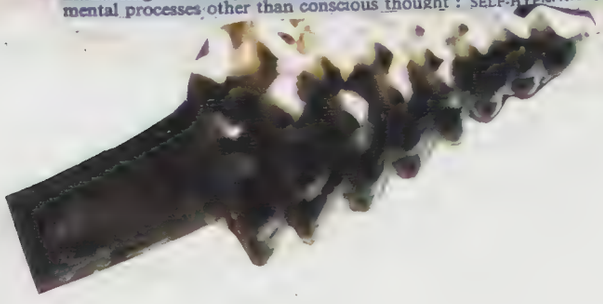
autos–da–fé *pl of* AUTO-DA-FÉ


au·top·sy

1-800-666-HOT
COOKA
COOCK
COCK

au·to·sex·ing \ˈȯ-tō-ˌsek-siŋ\ *adj* (1936) : exhibiting different characters in the two sexes at birth or hatching having a purpose in and not apart from influencing of one's own attitudes, behavior, or physical condition by mental processes other than conscious thought : SELF-HYPNOSIS

overwhelm
down with



Contributors' Suggestions:

JAMES AUER
Books ***Searching for John Ford*** Joseph McBride;***The City Is My Canvas*** Richard Haas and Beth Dunlap
Films ***Shadow of the Vampire*** E. Elias Merhige; ***Laura*** Otto Preminger; ***Lady on a Train*** Charles David;
Stop Making Sense – The Talking Heads Johnathan Demme
Music ***Judy at Carnegie Hall*** Judy Garland

THOMAS AUGST
Books ***Rule of the Bone*** Russell Banks; ***Before Time Could Change Them: The Complete Poems of Constantine Cavafy*** translated by Theoha Theoharis; ***The Man Without Qualities*** Robert Musil
Films ***Requiem for a Dream*** Darren Aronofsky; ***Monsieur Hire*** Patrice Leconte; ***Marnie*** Alfred Hitchcock
Music ***Chet Baker Sings!*** Chet Baker; ***Prelude to a Grand Love Story*** Kid Loco; ***Sympathique*** Pink Martini

DENNIS BALK
Books ***Island in the Sky*** Stanley Schmidt and Robert Zubrin; Back issues of ***Analog Magazine***;
Paul McCarthy New Museum Catalog Dan Cameron
Films ***The West Wing*** NBC; ***The Thin Red Line*** Terence Malick
Music ***I Tunes***; ***Heavy Metal Mayhem***

SUSAN BELL
Books ***In Praise of Shadows*** Junchiro Tanizaki; ***The Taverner Novels*** Mary Butts; ***Mildred Pierce*** James Cain
Films ***The Killer of Sheep*** Charles Burnett; ***Blue Sky*** Tony Richardson; ***Johnny Guitar*** Nicholas Ray
Music ***Mustt Mustt*** Nusrat Fateh Ali Khan; ***Decameron and Domna*** Esther Lamandier;
l'histoire de Babar recited by Jeanne Moreau , with music by Francis Poulenc (pianist: Jean-Marc Luisada)

GIL BLANK
Books ***Machine in the Studio*** Caroline A. Jones; ***Slouching Towards Bethlehem*** Joan Didion;
Ringolevio Emmett Gorgan; ***A Happy Death*** Albert Camus
Films ***Blood on the Windshield*** and ***Your New Learner's Permit*** The New Jersey Division of Motor Vehicles
Music ***Music for Airports*** Brian Eno; ***Facing Future*** Israel Kawakawiwo'ole;
South Side of Chicago Vic Damone; ***Devil Got My Woman*** Skip Jones;
Pop a Wheelie, Cop a Feelie The Bidget Girls

JAN-WILLEM DIKKERS
Books ***American Brewer Magazine*** Bill Owens
Films ***Lawn Dogs*** John Duigan
Music ***Teenager of the Year*** Frank Black

MITCH EPSTEIN
Books ***Coming Through Slaughter*** Michael Ondaatje; ***Appointment in Samara*** John O'Hara;
Aberration of Starlight Gilbert Sorrentino; ***Ray's a Laugh*** Richard Billingham
Films ***The Conversation*** Francis Ford Coppola; ***L'Avventura*** Michelangelo Antonioni;
The Music Room Satyajit Ray
Music ***Duke Ellington*** and ***John Coltrane***; ***Little Girl Blue*** Nina Simone;
My Home Is in the Delta Fred and Annie Mae McDowell

ROBERT GREENSTREET
Books ***England's Dreaming: Anarchy, Sex Pistols, Punk Rock and Beyond*** Jon Savage;
In a Sunburned Country Bill Bryson
Films ***Still Crazy*** Brian Gibson
Music ***To the Bone*** The Kinks; ***The Very Best of The Small Faces*** The Small Faces

REGINA HARRIS
Books ***The Dwarf*** Pär Lagerkvist; ***The Ecstasy of Communication*** Jean Baudrillard;
The Silent Language Edward T. Hall; ***Something like an Autobiography*** Akira Kurosawa;
Anything by Erskine Caldwell
Films ***Yume*** Akira Kurosawa; ***Pecker*** John Waters; ***The Sacrifice*** Andrei Tarkovsky; ***Umrao Jaan*** Muzaffar Ali
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Music ***Requiem*** Wolfgang Amadeus Mozart; ***The White Stripes*** The White Stripes; ***Voodoo*** D'Angelo

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Films ***La Captive*** Chantal Akerman; ***Come and See*** Elem Klimov;
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Three Uses of the Knife David Mamet
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Histoire(s) du Cinéma Jean-Luc Godard
Music ***Histoire(s) du Cinéma*** Jean-Luc Godard

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Films ***A Woman Under the Influence*** John Cassavetes; ***Orpheus*** Jean Cocteau; ***D'Est*** Chantal Akerman
Music ***Everything and Nothing*** David Sylvian; ***Africa Brass*** John Coltrane

PAUL MCCARTHY
Books ***Finnegan's Wake*** James Joyce
Films ***Salo - 120 Days of Sodom*** Pier Paolo Pasolini
Music all works by ***Cecil Taylor, The Melvins***, and ***Steve Reich***

MARILYN MINTER
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Films ***The Center of The World*** Wayne Wang
Music ***Whatever You Love, You Are*** Dirty Three

DENNIS OPPENHEIM
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Films ***Blow*** Ted Demme; ***Memento*** Christopher Nolan
Music ***The Mirror Conspiracy*** Thievery Corporation; ***The Red Session*** Kruder Dortmeister;
Time Out of Mind Bob Dylan

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Eyewitness Travel Guide: Paris DK Travel Writers; ***Cooking with Beer*** Lucy Saunders;
Tell Me the Truth About Love W.H. Auden
Films ***Pollock*** Ed Harris; ***O Brother, Where Art Thou?*** Joel and Ethan Coen; ***Traffic*** Steven Soderbergh
Music Whatever's on the car radio. And, I listen to NPR.

SPANDAU PARKS
Books ***Finnegan's Wake*** James Joyce; ***Nora, The Real Life Molly Bloom*** Brenda Maddox;
Joyce's Waking Women Sheldon Brivic
Films ***Ulysses*** Joseph Strick; ***Nora*** Pat Murphy
Music ***Anna Livia Purabelle*** James Joyce

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Films ***Freeway*** Matthew Bright; ***Raging Bull*** Martin Scorsese;
The Eyes of Tammy Faye Ronny Barbato and Fenton Bailey
Music ***I Can't Help It*** Betty Carter; ***Talking Book*** Stevie Wonder; ***Absorbing Playtime*** Oddjobs;
Cure For Pain Morphine

LARRY TOWELL
Books ***The Collected Poems of Dylan Thomas***; ***The Country Between Us*** Carolyn Forché;
Century Phaidon Books
Films none
Music ***The Complete Recordings of Robert Johnson***; ***Slant 6 Mind*** Greg Brown;
Far Away, Down on a Georgia Farm Norman Blake

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Books ***In the Heart of the Sea: The Tragedy of the Whaleship Essex*** Nathaniel Philbrick
Films ***Chalk Garden*** Ronald Neame
Music ***Gord's Gold*** Gordon Lightfoot

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Books ***On the Road*** Jack Kerouac
Films ***My Own Private Idaho*** Gus Van Sant; ***Fight Club*** David Fincher
Music ***White Ladders and Lost Song*** David Gray; Anything by Yaz

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Books ***Tropic of Cancer*** Henry Miller;
Let It Blurt: The Life and Times of Lester Bangs, America's Greatest Rock Critic Jim DeRogatis
Films ***Waking the Dead*** Keith Gordon; ***Salesman*** Albert and David Maysles
Music ***I Against I*** The Bad Brains; ***Ride of Me*** PJ Harvey

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Books ***The Radetzky March*** Joseph Rothl; ***I Served The King of England*** Bohumil Hrabal;
Joe Gould's Secret Joseph Mitchell; ***Ragtime*** E.L. Doctorow; ***The Quiet American*** Graham Greene;
Fake! Clifford Irving; ***Between Meals*** A.J. Liebling
Films ***Point Blank*** John Boorman; ***The Leopard*** Luchino Visconti; ***The Long Goodbye*** Robert Altman;
l'Humanité Bruno Dumont; ***Amores Perros*** Alejandro González Iñarritú
Music ***Talking Timbuktu*** Ali Farka Ture with Ry Cooder; ***Sol Negro*** Virginia Rodrigues;
Come On Die Young Mogwai; ***Kinship*** Maya Beiser; Tom Waits (most of him)

JEFF ZILM
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New Day in Babylon: The Black Power Movement & American Culture, 1965–1975 William L. Van Deburg
Films ***On Top of the Whale*** Raúl Ruiz; ***The Hypothesis of the Stolen Painting*** Raúl Ruiz
Music ***The Messy Jesse Fiesta and De Snaunted House*** Blectum from Blechdom;
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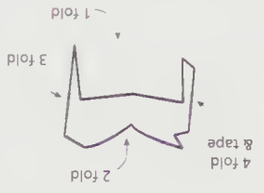

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JOHN WOLFINGTON

MUSIC FOR IMAGES

Written and performed by John Wolfington
Recorded at home in NYC June 2001 for ISSUE Magazine
Additional recording and mixing done at Joe Porto Studios Barnesville, M
Mastered by Mark Wike at Gary Lash, NYC
Special thanks to Joe Porto

RACE THE SUN

Written by John Wolfington
Courtesy of Smells Like Records
Taken from John Wolfington released January 2001
All instruments by John Wolfington
except for otro keys played by Jesse Dorsey
and backing vocals by Toko
Recorded at Vic Thrill Salon Williamsburg, Brooklyn
Engineered by Billy Campion

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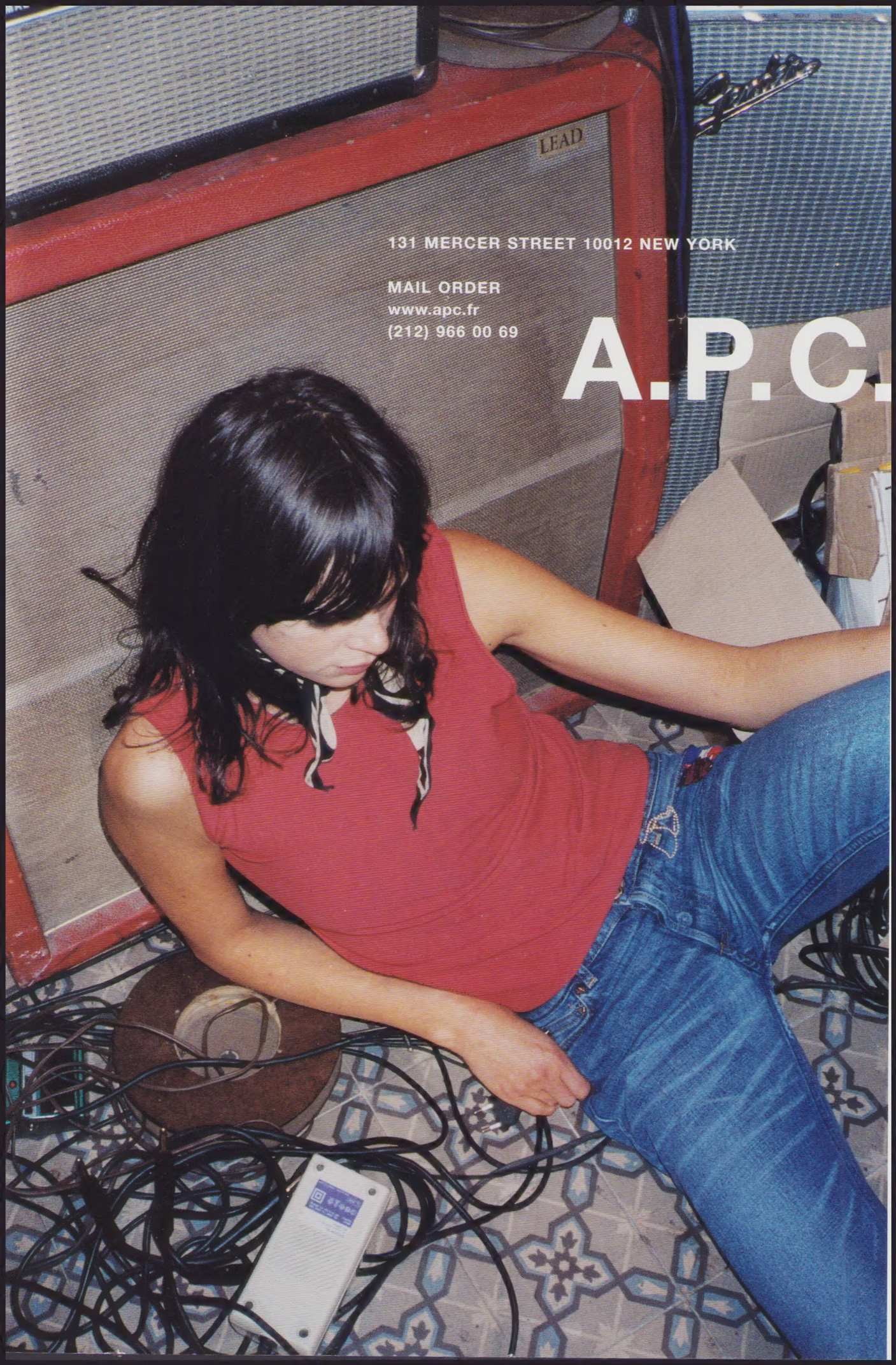

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